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The How-To Reference Magazine For Visual Communicators

Volume 6, Number 6

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The photo, courtesy of Dennis Bourke, was scanned on a Crosfield 646 Drum Scanner and saved in internal Crosfield format. The 35 megabyte file was imported into ColorStudio. Artist Bill Lombardo retouched the fleshtones, and using the customizable paintbucket and Luminence Mask, added delicate hints of color to the water drops. The earring, imported from another image, was resized and gem color changed. Type was set in LetraStudio and, using the Shapes annex, was colored, sized and rendered as a high-resolution bitmap into the image which was separated in ColorStudio.

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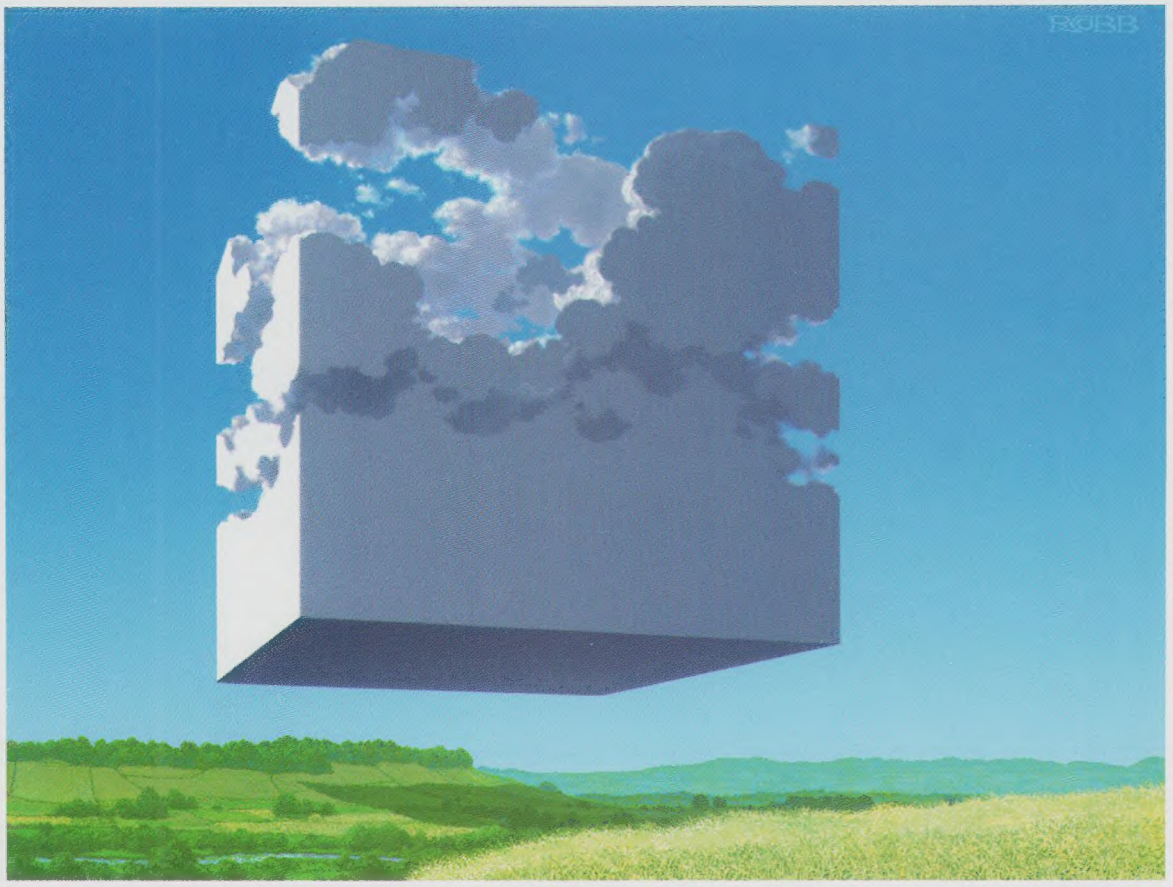

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STEP-BY-STEP graphics®

September/October 1990

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See how Gary Kelley combines modern design principles, realistic drawing and glazing with pastels, as he illustrates a French classic.

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80 Specifying and Printing Recycled Paper
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96 3-D Depth and Impact on the Desktop
Create cost- and time-effective 3-D art by combining an inexpensive 3-D program with object-oriented illustration programs.

104 Concepting Editorial Assignments
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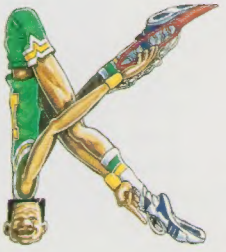

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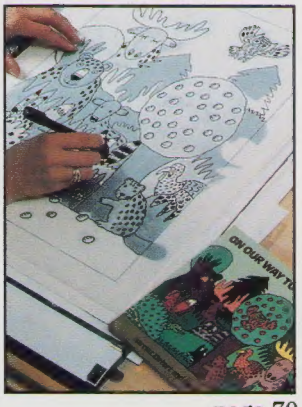

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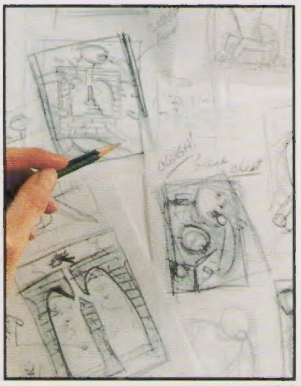

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EDITOR'S NOTE

Flipping channels this morning over coffee, I stumbled across "Today Show" hostess Deborah Norville chirping about (of all things!) altering photographs on the computer. Electronic graphic design gets mainstream national coverage, I marveled! But as Norville flitted among her three guests—photographer Rick Smolan (publisher of the "Day in the Life" book series), an "ethics" spokesperson, and Adobe's Art Director, Russell Brown, who was perched in front of a Mac demonstrating the ease with which he could use Photoshop to add a photo of himself to an original color shot of "Nancy, Ron and the American flag" — viewers, I fear, got only a superficial glimpse of what is a virtual revolution in the graphic arts. Programs like Adobe's Photoshop and Letraset's ColorStudio are bringing a highly sophisticated level of image manipulation—once solely the domain of photo-retouchers and high-end CEPS—down to the level of the individual Macintosh user. Well, we really shouldn't complain. A photographer and Mac-wielding art director got on national TV (even if they did get upstaged by over-reported cover scandals like *TV Guide's* "Oprah Winfrey-head-plopped-on-Ann-Margaret's-body" or *National Geo's* pyramids).

To help you get a handle on this revolution and its inherent creative, production and copyright challenges, we're developing a variety of practical articles, some of which will be appearing in our upcoming Annual, "The Designer's Guide to Using Color." And in the meantime we thought we'd share with our readers just a few of the exciting images created at the recent three-day Adobe Photoshop Workshop, where I was fortunate to be able to observe a talented group of world-class photographers, designers and artists — David Hockney, Etienne Delessert and Eiko Ishioka among them — as they "played" with this new technology. Some of them had never touched a computer before; still others had only limited experience, so most were using the time to learn, rather than craft a finished piece. Hockney, for example, seemed most intrigued by the still video interface. New to the Mac but no stranger to technology, Hockney has had a Canon Color Laser copier (CLC) in his L.A. studio for some time and is currently working on connecting it to a Mac system. Since we don't have nearly enough space to do justice to any of the artists' explorations here, please watch for a more detailed story in an upcoming issue.

Nancy Aldrich-Ruenzel

Graphic designer Sam Smidt "I brought this simple engraving, scanned it into Photoshop as a line drawing, took it from positive to negative, and then in the RGB color mode used the pencil tool to lay in and change colors. Just a week before the workshop I had purchased a MacIIfx system, so I was a total computer novice."

Photographer Chris Callis "I found the Mac extremely simple, and Photoshop incredibly intuitive. This piece was basic collage and there are certainly other methods of combining pictures like that. Like with any new technology, it'll take some time to figure out the subtleties to make the imagery really brilliant."

Photographer Dan Springston "I just airbrushed it"–the digitized scan from a 35mm slide that had been made from his original black-and-white print–"using the airbrush mode in Photoshop, as though I were creating graffiti with a can of spray paint, and it came out really wild looking. The possibilities are infinite."

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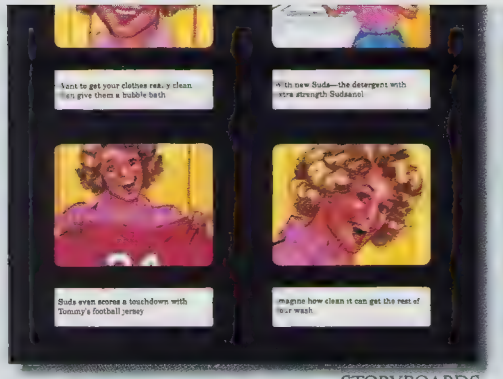
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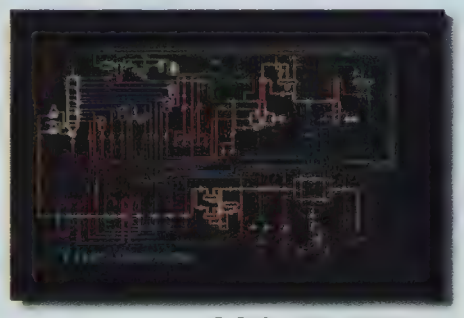

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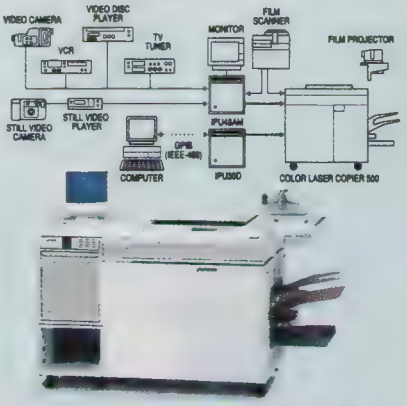

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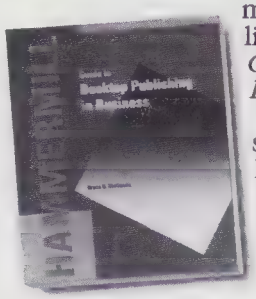

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LETTERS

Panning Polybags

I'm in agreement with Vikki Appleton's letter from *Step-By-Step Graphics*, Vol. 6, No. 3. If polybags were eliminated from the magazine, how many less bags would be dumped into our landfills?

It was extremely inconvenient trying to sort brown glass containers from green when the recycling laws went into effect here in New Jersey. However, it is no longer troublesome and is part of my routine. One less polybag on my next issue is one less plastic bag in the landfill.

My inspiration to write began with T. Egleton's rebuttal to Ms. Appleton's letter. Egleton stated that "maybe we should all be careful about overreacting in the name of environmental protection," and that her latest issue of *Step-By-Step* would have been ruined by rain if it hadn't been for the polybag.

Perhaps its time to buy a bigger mailbox, one with a protective door.

Michael David Biegel
Allendale, N.J.

RRED/RREU Clarification

Regarding the "RRED vs. RREU" Solution in Vol. 6, No. 4, there was a notable omission. RREU film is essential for producing finer detail when creating photo silkscreen stencils. The emulsion of the positive needs to be in direct contact with the stencil's photo film or emulsion in this instance.

Jacqueline Skiles
New York, N.Y.

France or Belgique?

In the article "Jean-Michel Folon: On Following Your Dreams," you refer to Folon as a French artist. Isn't he a Belgian?

Nancy Hult
Oradell, N.J.

Editors' Note: Yes, Jean-Michel Folon was born in Belgium, but has spent his entire professional career in France. We regret the misunderstanding.

Editor's Correction: The German Bible Society Bible page shown on page 115 of Vol. 6, No. 5 ("A Type Design With a Purpose") demonstrated the use of Times Roman, not ITC Weidemann, as was intended.

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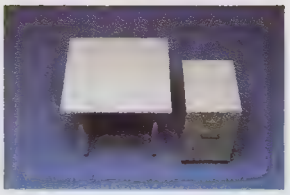

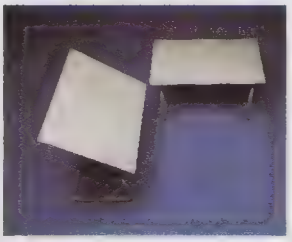

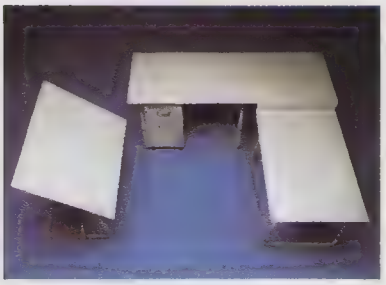

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Circle 9 on Information Card

Rapidograph® Art

. . . Richard Gerstner's "polarized" street scenes

If these drawings by Richard Gerstner were in color, they could be described as posterized, the technique of seperating one color or tone from another to provide depth and modeling of subject material. But these black-and-white line drawings, created with the Rapidograph® pen outlining implied detailing, contrapose what should be highlights and depth of color. The eye does not stop to interpret these details, but accepts the imagery as complete and satisfying, and totally recognizable. The core of black fill-in not only compliments, but is complimented by the overall technique, providing a unified drawing from two different types of element.

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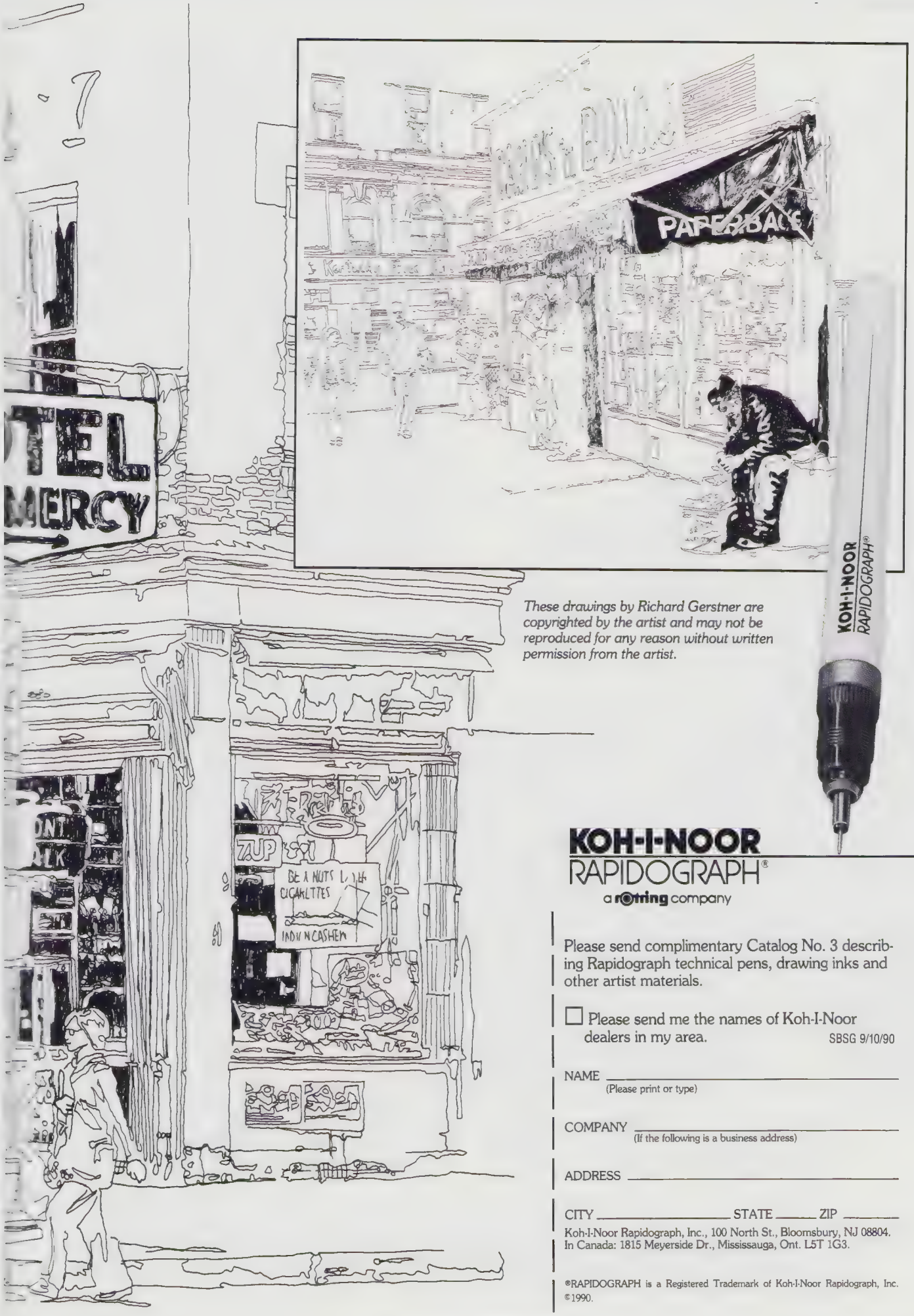

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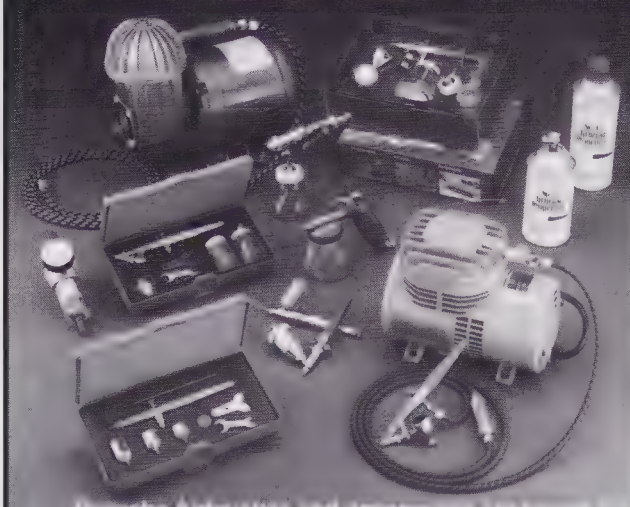

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CAREER TIPS

Helpful hints covering a wide variety of practical issues.

'TIS THE SEASON

Early fall is the time to start thinking about your holiday mailing. While sending out holiday gifts as a promotion tool can often be expensive, for many design firms it can be a profitable investment that creates goodwill among clients. In an informal phone survey, five of six design firms *Step-By-Step Graphics* contacted about their holiday gift-promotions agree that it was a worthwhile venture.

Stan Evenson Design along with Martha Productions, sent to their clients "Reindeer Chips"—chocolate chip cookies (the large delectable kind) that were placed in cleverly-designed tin containers. The Culver City, Calif.-based companies, one a design firm, the other an illustrators rep, are owned by a husband and wife team. Martha Spelman, of Martha Productions, reports, "The whole project was very labor intensive," because most of the work was done by their own staffs, including packing, designing and hand writing each name on the hangtags and placing them on the 350 tins. The project took about five months of planning and was only possible because of discounts received from vendors. She says design and production time totaled 180 hours. Expenses were $2,600, including printing, which was donated. "We paid retail for some things, like the cookies, but other services were discounted, and that was the only way we could have done this project. It was also difficult because cookies are perishable, so you have to get them out quickly," she adds. Their labor paid off, however, since the promotion resulted in several new clients.

Perhaps the key to whether a holiday gift is successful or not is its originality. Parham Santana, a New York-based design firm, sent out car fresheners in the form of a Christmas tree. The gift, which cost $5.90 each to produce (including design, printing, labor and mailing), doubled as a conservation awareness message to their clients. "I think we further distinguished our firm as unique," says president John Parham. "There was something unavoidable about opening it because of its strong fragrance. It was impossible not to say anything about it."

Holiday Cheers A tin canister of premium cookies was a tasty self-promotional produced by Stan Evenson Design together with Martha Productions that garnered new business for the design firm (top). The sweet smell of pine in the car freshener sent out by Parham Santana, a New York-based design firm (below) doubled as a conservation awareness message to their clients.

Dan Johnson, president of Art Direction Inc., a Dayton, Ohio-based design studio says his clients still talk about a spaghetti box promotion his firm sent out two years ago. "People remember a unique gift and it is a great conversation piece," he says. "It's a good way to keep your name in front of the public, remind them all the time that you're there, and that you don't wish to bother them during the day when they're busy." But he also warns that the biggest problem some firms have with promotional gifts is "they put all their money in one hit."

And a lot of that money, most designers agree, gets eaten up in postage. Cincinnati-based design firm Butz Gaskins spent less money for a chocolate horseshoe and box than they did to mail it. "The postage killed us," said art director Nancy Stover. The firm even saved printing costs by having their own designers do most of the artwork on the boxes by hand: "Since there was no four color printing involved and no special paper, the piece was actually less expensive than our normal Christmas card, but each one cost 75 cents to mail."

Virginia Gehshan of Cloud and Gehshan in Philadelphia had a hit with her cubed note pads that she sent out as Christmas gifts several years ago. She printed 500 cubes, in two colors at a total cost of $3,500. Gehshan said that while this kind of promotion is very time consuming and has to be planned months in advance, she received an enthusiastic response.

But not all holiday gift promotions are successful. Flor-

ence Liebert, president of Liebert Studios in New York, said a necktie gift promotion they sent to 100 clients several years ago was a flop. "It was costly [$10 each] and just became a conversation piece," she adds.

The general advice from most design firms is to choose a gift cleverly, because originality is the essential ingredient to its success. Also get good quality suppliers together and see what you can do yourself to save money.

SCHOOL DAZE, SCHOOL DAZE

It's that time of year again, and while parents, teachers and guidance counselors do their best to help, choosing the right design school is no easy task even for the most well informed. To make the process easier, the Educational Council of the Graphic Arts Technical Foundation (GATF), has produced a 14 minute video and organizational checklist that details a step-by-step procedure for selecting a school, from first campus visits to applying for financial aid. "Selecting a School for a Career in Graphic Communications: An Industry with Vision," costs $25 and gives prospective students suggestions on identifying and researching programs, how to compare programs among various schools and how to apply to the most suitable schools. The checklist helps students organize the information that will affect their choice. Its structure forces students to compare such things as the kinds of programs offered, the equipment available and percentage of students who garner jobs in their field upon graduation. There is also an expenses worksheet which helps students estimate total cost.

For more information contact Bonnie Bokor at GATF, 4615 Forbes Ave., Pittsburgh, PA 15213; (412) 621-6941.

DOES A SELF PROMOTION NEED A REPLY CARD?

Yes, if you are selling widgets to widget buyers, says Ian Summer, who runs the Creative Business Workshop, and is editor of a newsletter for creatives. If you are selling creative services, it is a waste of time and money to believe art directors will actually take the time to fill out your cards and mail them back.

Unlike companies with products for sale, creatives sell a service. While direct marketing experts say the best results come when a response card is included, they have not studied the primary audience for those direct mail pieces, art directors, whose days are filled with hundreds of different activities, only one of which is opening mail. According to Summer, art directors receive between 14 and 20 pieces of mail a day "most of it from people trying to sell apples to people who only buy oranges."

For Summer, the most effective promotions are those that target a specific audience and may even bypass the mail. He tells of a legendary story of photographer Steve Steigman who hand delivered homing pigeons to the offices of art directors he wanted to know. The tag read, "If you want to see Steve Steigman's portfolio release the pigeon." Of course, the art directors did not want the birds in their offices, so they released them. Follow-up calls resulted in 80 appointments.

In another case, after completing a successful calendar, two illustrators who wanted to let agency art directors know they were available for work sent a group of strolling troubadours playing flutes and lutes. The tactic resulted in an immediate assignment.

While direct mail can work for some creatives, especially if the pieces are followed up with phone calls, there are certainly more inventive, and perhaps more effective ways to promote yourself.

A GOOD PITCH FOR NEW BUSINESS

It is probably a very good time to start pitching your food clients on package redesign. In approximately one year, the U.S. Food and Drug Administration's (FDA) proposals for mandatory nutrition labeling for most food products will likely go into effect. This means that throughout 1991, designers—especially those who create food packaging—will be busy either adapting existing package designs or redesigning to accommodate these changes.

Right now the FDA is seeking public and industry comments on regulations that would require:

- Nutrition labels—standardized listings of a food's nutritional values—for most packaged foods.
- Nutritional information for fresh products and seafood in retail stores through such means as signs and brochures.
- Listing of four new components—saturated fat, fiber, cholesterol, and calories from fat—on all labels.
- Listing of thiamine, riboflavin and niacin will be optional since the U.S. population suffers no nutritional deficiency diseases related to these "B" vitamins.

Under the proposals, labels must be changed no later than a year after the publication of the final rule, which will take place in late 1990 after the 120-day period for public comment. In all likelihood, mandatory labeling would go into effect in early 1992.

These proposals are actually the first of a series the FDA has outlined. The agency also plans to issue proposed regulations to standardize serving sizes and use of such descriptive phrases as low-fat and high-fiber; to define the cholesterol claims placed on food labels; to standardize and to revise the U.S. recommended daily allowances (RDAs) for daily vitamin and mineral intake.

This information may even serve as a good entree for designers seeking new clients. No doubt they will be impressed with a letter outlining the changes they face and how you as a designer can help them. ■

Illustrations by Matt Wawiorka

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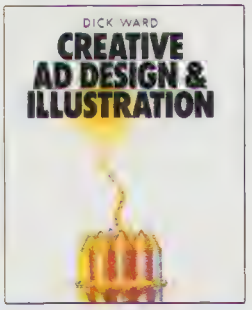

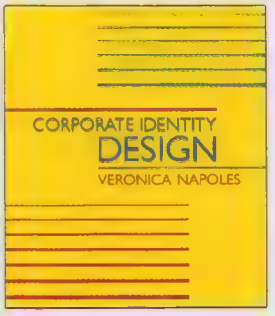

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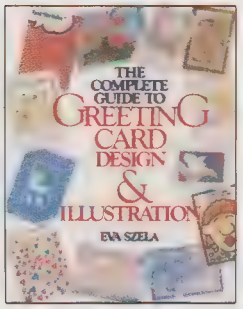

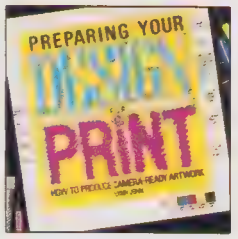

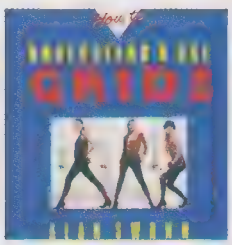

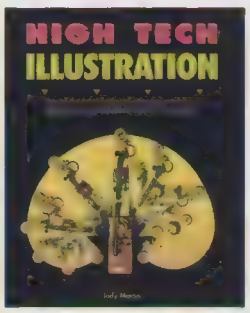

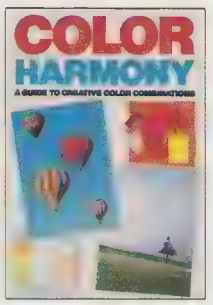

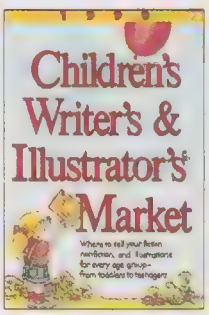

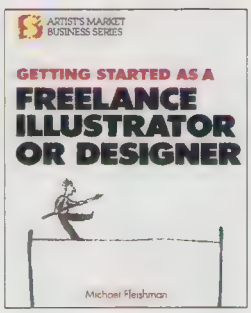

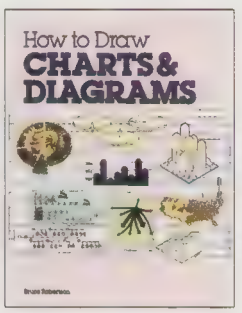

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Solution If your color transparency will be placed in an enlarger for reproduction as a one-off color print, flopping it won't noticeably affect its quality. "You *might* notice some softness if you want an extremely big enlargement," says Mike Baziw, spokesperson for Eastman Kodak Company.

However, if it will be contacted to another piece of film for printing reproduction, you may want to reconsider flopping. Since the transparency's emulsion will now be up, your contact print will be made through the base of the film and sharpness could be a problem, notes Robert Dainton, technical and applications manager at Agfa Corp. High quality print applications on glossy paper could be particularly troublesome

Baziw adds that the sharpness and quantity of the dots in highlight and shadow areas of a separated flopped photo could also be jeopardized. "If you have to flop a photo, tell your film house to first make an emulsion-to-emulsion dupe negative, and then flip it," he explains. This should preserve the dot pattern.

A less obvious and often forgotten problem when flopping is disregarding the contents of the photograph. Watch for these troublespots.

- While few people would intentionally flop a photo that contains type, it does happen, sometimes in very subtle instances. A wrong-reading logo on someone's clothing or backward numbers on a wristwatch or phone are dead giveaways.
- Most married people wear their wedding ring(s) on their left hand. Make sure your subjects do, too.
- The majority of the world's population is right-handed and wear their watches on their left wrist—although this is not always the case. Nevertheless, beware of a group shot in which every single person is wearing his or her watch on the right wrist—it's suspicious and unlikely.
- Most men's dress or button-down shirts in the United States have their pocket on the left side (when there is only one pocket). Again, a single subject with a backward shirt may not draw too much attention, but a whole roomful may.
- Photos of recognizable sites or objects, even if they are halfway across the world, should never be flopped. Someone, somewhere will catch you.
- Flopping a photo may skew the perspective of a photo. You may not be able to put your finger on what is wrong, but the shot will look "funny."

All of the troublespots listed above are admittedly subtle, but the human eye is much more likely to spot one of these problems than it is to discern a skillfully retouched photo. Being "caught" in what the viewer might perceive to be a mistake can be detrimental to your credibility. So proceed with caution. ■

Faults of Flopping Backward type is a dead giveaway that a photo has been flopped, but the lower shot has other problems. Even without the tell-tale sign, the house is a historical site that someone will recognize, and flopping it also skews the perspective of the shot. From a production standpoint, having to separate the transparency by shooting through its emulsion degrades its clarity.

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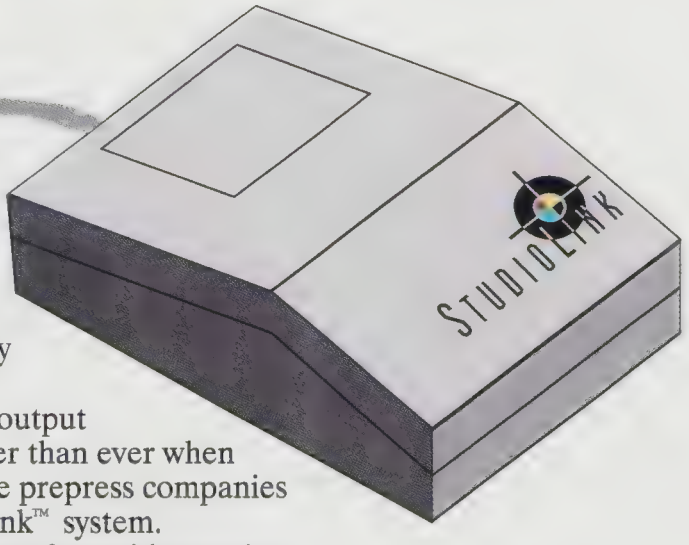

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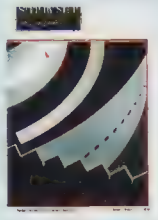

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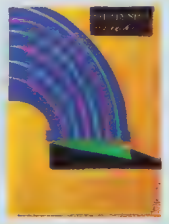

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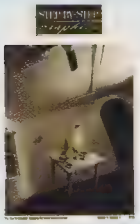

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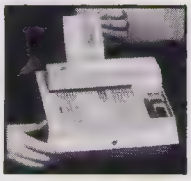

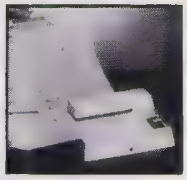

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Glazing With Pastels

Gary Kelley combines modern design principles and realistic drawing with pastel glazing as he illustrates a French classic.

By Simon N. Dumenco

Although Gary Kelley's widely acclaimed pastel editorial and advertising work most often illustrates something specifically requested by a client—a scene from a book, a character, or a cityscape perhaps—somehow his best work always seems to transcend the prescribed. His graphic art has become art.

"I've always had this need inside of me to produce what are legitimate pieces of art that also happen to be illustrations," Kelley says. "You can't always do it, but I try to do as many pieces as I can that could hang on a wall as well as solve a client's problem."

Kelley has had the chance to solve a lot of clients' problems while racking up a number of prestigious honors from the Society of Illustrators. In fact, in the Society of Illustrator's 32nd annual show, held in early 1990, Kelley won four medals, two gold and two silver—the most any illustrator in the history of the Society has received in a single year. In addition, one of his illustrations comprises the cover of "Illustrators 31," the Society's illustration annual. He has built a terrifically loyal and enthusiastic client base—including *Rolling Stone*, The Franklin Library, *Playboy*, *Newsweek*, Avon Books, Warner Books, CBS records and the NFL—because he works hard, works fast, and most of all, works smart.

"Looking at Gary's illustrations, it's clear that there's a very good conceptual mind behind the work," says Gail Dubov, an associate art director at Avon Books for whom Kelley did a series of covers for a repackaged collection of books by the Pulitzer Prize-winning author Alison Lurie. Unlike a lot of illustrators, Kelley, says Dubov, is more than willing to read manuscripts and concept his own thumbnails. "He makes my job a lot easier."

Jackie Meyer, a vice president and creative director at Warner Books who has used Kelley to illustrate covers for a series of books by the best-selling mystery writer Ross MacDonald, praises the depth and breadth of his style. "His work does everything; it works at all different levels. It's very stylistic in one sense, but also very realistic. And that's great for an art director in mass market publishing because while we love to please our own sense of creativity and style and win awards, the mass audience also needs a certain amount of realism."

Meyer credits Kelley's background in design (he worked for a number of years as a designer and art director before gradually shifting his emphasis to illustration) for his unusual sensitivity to the demands of editorial illustration. "His background in art direction comes through in his work, because he understands that the piece doesn't just depend on being beautiful and decorative, but really needs to convey a message."

That message, says George Peterson, is something of an aura. Peterson, of the Mankato, Minn.-based publishing company Creative Education, commissioned Kelley to produce a series of illustrations (one of which will be chronicled in this article) for a book-length version of Guy de Maupassant's classic story "The Necklace." The book will be published next spring. For Peterson, Kelley's appeal is simple to explain: "I like the emotions and moods that he can bring to his illustrations."

ELEMENTS OF A STYLE

More than anything, the Kelley "look" represents a seamless fusion of unrestrained, paint-

Belle Epoch Paris Gary Kelley's work contains a seamless fusion of unrestrained, painterly gestures and painstaking assembly, as shown in the illustration done for Guy de Maupassant's book, "The Necklace," at far right.

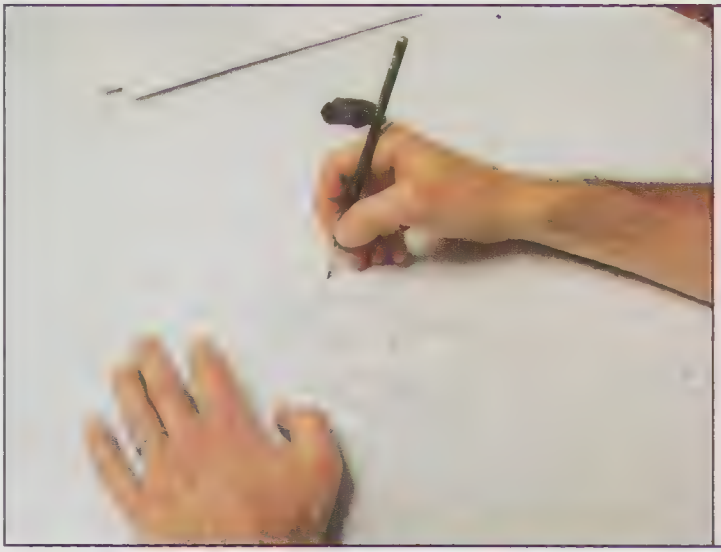
erly gestures and painstaking assembly. His work derives its artistry from a seemingly impossible, deliberate mélange: hard edges and voluptuous curves, realism and abstraction, lustrous surfaces and forbidding shadows, compressed planes and breathtaking depths of field, birds-eye views and head-on perspective. A Kelley illustration can have an almost throbbing vitality—an alluring visual tension that echoes the qualities of some of his internalized influences, including the cubists and the masters of art deco. (See the sidebar within this article.)

This direction asserted itself in the mid-1980s when Kelley made a conscious effort to make his work "more painterly, more legitimate." Explains the artist: "I wanted to open up another side of me, get a sniff of some other types of jobs. I just didn't want to do the annual reports with the nice impressionist scene. I wanted to get out on the edge a little more. I am still a traditionalist, basically. This is a comfortable compromise between modern art of the 1910s and 1920s and classic, traditional art."

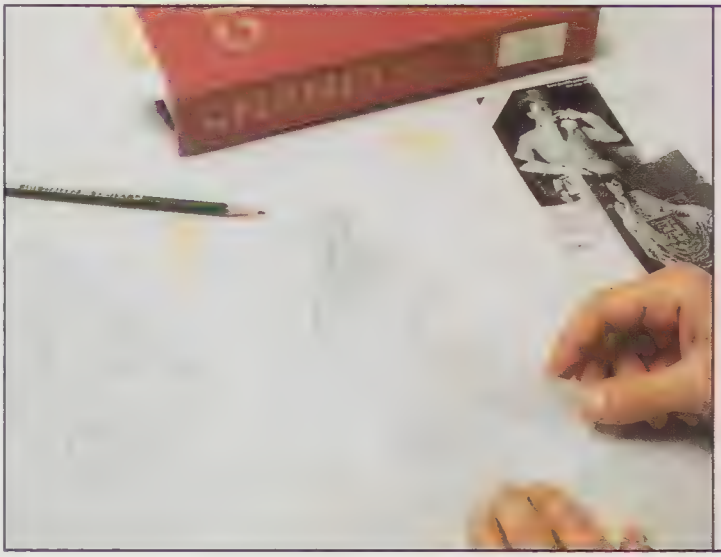
That vitality and tension in Kelley's work is hardly accidental. In his second-story studio above a storefront in Cedar Falls, Iowa, Kelley is stooped over his illustration for "The Necklace." "If you look closely," says Kelley, "some of the angles and the flow in the work end up being counterpoints and even mirror images of others." The image, he explains, is something of a dreamscape. "The story is about a woman who wishes that she had more status in life; she longs for the good life that her middle-class husband can't provide her. The image that I've developed is kind of her imagination. It's what she would like her life to be."

In Kelley's illustration, the character's aspiration to affluence places her in a chic

1 As he reads through the manuscript of Guy de Maupassant's classic story, "The Necklace," Kelley makes quick pencil sketches of ideas that he might turn into illustrations. There was no art director on this project; it was entirely up to Kelley to decide what to illustrate.

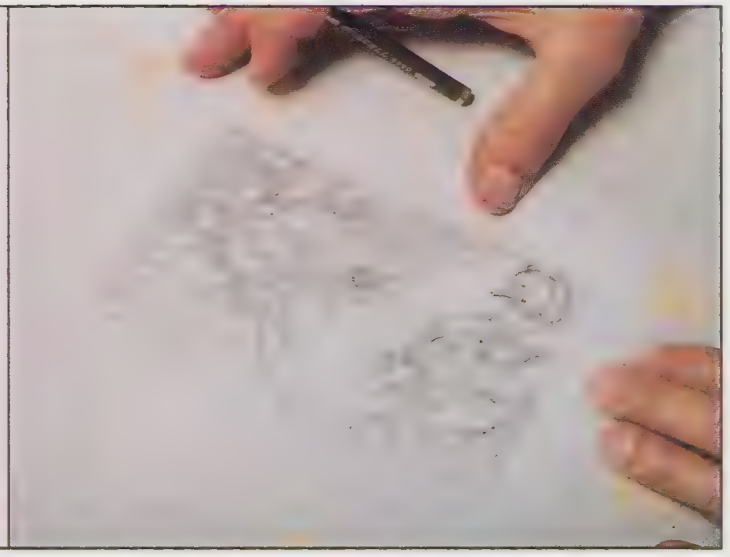


2 After sketching three or four thumbnails, he arrives at one he likes. This is largely an exercise in establishing the skewed, almost cubist perspective of his chosen scene—an aristocratic woman and her dandified husband will be shown head-on, while the table they are seated at will be viewed from overhead.

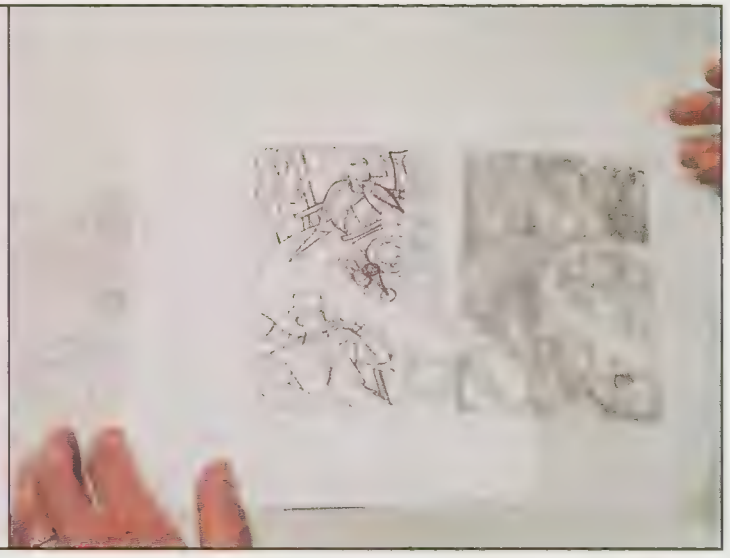


3 Kelley then refines his thumbnails, using various references to realistically establish the details of his chosen era: 1910 Paris. Here, he traces the individual primary elements—the man and the woman, for instance, were sketched on separate tissues—onto a single master tissue.

Photos by Rick Chase



4 The refined master pencil drawing; note that even at this stage, Kelley's details ring true. The art nouveau column in the background to the left of the woman is from a photo of Maxim's, "the place to go in Belle Epoch Paris." The chair back to the woman's right is also accurate to Maxim's.



5 Before adding values with pencil (right), Kelley makes a photocopy of his master pencil drawing (center). "This little value study," says Kelley, "serves as my primary influence when I do the finished piece." The darks and lights that he establishes at this stage will more or less appear as they are in the final art.

6 At the last minute, Kelley decided that he did not quite like the woman's face, so he went back and resketched it, relying on different reference photos. "I wanted her to make eye contact to make her seem less detached."

Parisian restaurant. The woman and her dandified husband are seated at a round table, set, in true bourgeois fashion, with a properly inflated number of spoons and forks. They bear an air of entitlement and seem utterly unflappable, seated as they are in the lap of righteous luxury. If only they knew of the labors that their creator, Gary Kelley, went through to place them there.

BIRTH OF THE NECKLACE

"The Necklace" amounted to an extraordinary assignment in that Kelley had total creative freedom. The illustration featured here is the first of approximately 14 pictures he will create for the work. The image was also used as a sales tool by publisher George Peterson, who wanted a sample illustration he could take with him to the Milan book fair to gauge interest in the project. By all accounts, it was well received and Kelley is scheduled to complete all of the illustrations by the end of 1990.

Kelley was extremely interested in this project because of previous work he has done for Peterson. After Kelley illustrated some works by Ray Bradbury, Peterson presented him with a list of books and asked him to choose which titles he wanted to illustrate. Kelley selected "The Legend of Sleepy Hollow" and Guy de Maupassant's, "The Necklace." For "Sleepy Hollow," which was released this fall, Kelley completed 15 illustrations and eight spots. (The book was created in collaboration with noted book designer Rita Marshall, who will also design the overall visual format of "The Necklace," including the typography.)

One of the joys of these book projects is the creative freedom Kelley is allowed. He did not receive faxes of thumbnails; rather, he read through the manuscript himself and conceived of possible images he felt worked with the text.

(See Figure 1.)

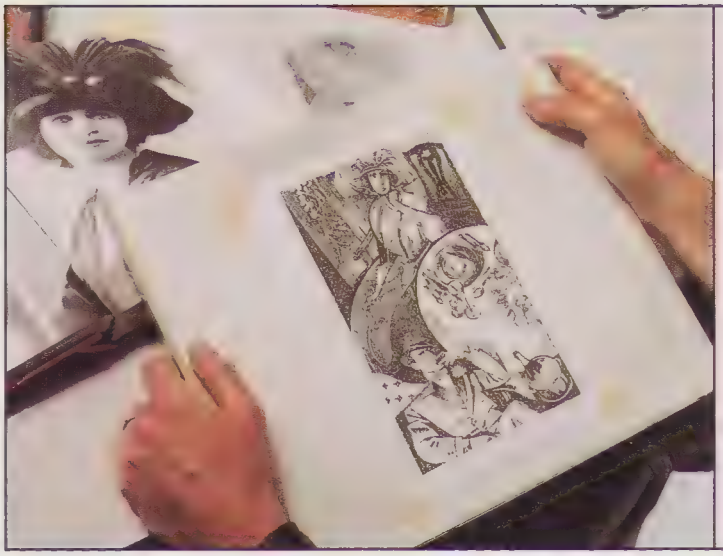
Kelley illustrations tend to have a historical, epochal feel, and these would be no exception. In particular, he wanted the illustration followed in this article "to feel like Paris, 1910. So it's influenced by the style of the period," he says. The cubist edge makes perfect sense—Picasso and Braque were developing cubism at the time—and the tonal range, understated as ever, intersects with "a kind of a Sargeant or Whistler palette."

THUMBNAILS Kelley did three or four loose pencil sketches before he arrived at one he liked. "For the most part, these were out of my head. No reference was involved at this point." It was an exercise in establishing content and viewpoint; and it was at this stage that Kelley decided he would offer an overhead of the dining table and frontal views of the man and woman that result in a flattening of the pictorial plane. (See Figure 2.)

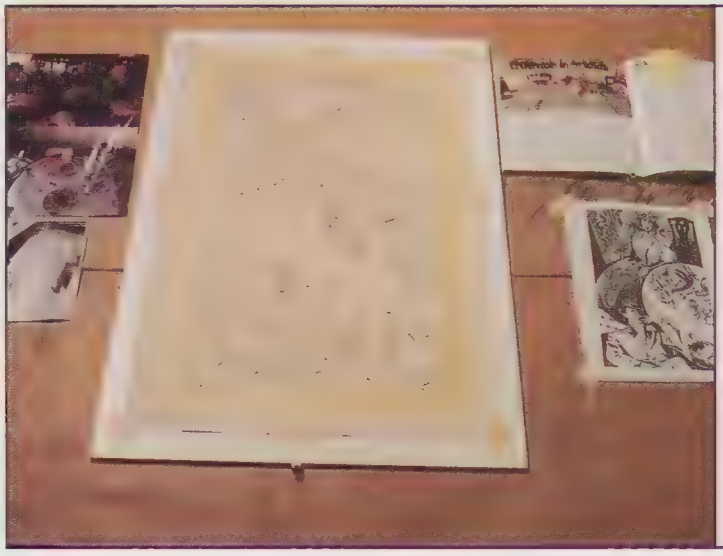
The variegated perspective, Kelley believes, owes much to his initial approach. "I always start with the format first. I draw a square or rectangle on the page, and then fill it up—as opposed to somebody like Alan Cober who starts in one corner and then draws off to the other side of the page. I like to see things that sort of crop and cluster and are confined by the area. That kind of confining of the elements and cropping them in a deliberate way, I think, creates an internal energy in the piece.

"The intent was to make sure that the man in the foreground wasn't necessarily any bigger or maybe not quite as big as the woman in the background. I wanted to create that strange juxtaposition, that strange depth of field."

REFERENCE The next, more refined stage of thumbnails, did involve reference—though Kelley did not (and never does) use his projector (Artograph)



7 Kelley simply ended up pasting a photocopy of the woman's altered face into his final composite pencil drawing. At this point, the image was placed on the platen of his projector (Artograph) and was enlarged onto the working surface, then traced with black CarbOthello pencils.



8 On tan Stonehenge drawing paper taped to foam core, Kelley masks off the image area with drafting tape. Nearby he keeps some of his reference handy. On the top left is a file scrap that will inspire the table top setting; on the bottom left, a scrap photo depicting a man from the era; on the top right, flowers from a guidebook to France; and at bottom right, his own value study.

9 Using dark green chalk over most of the image, Kelley creates the "underpainting"—the darks and lights that provide the value structure. "None of the colors you see in my work is the result of a pure, straight-from-the-box chalk," Kelley points out. "The colors almost always are the result of three or four or five or even six layers."

10 With much of the underpainting now complete, Kelley scumbles in some Tuscan red over some portions of the paper. His intent is to create lush, dark hues reminiscent of "a Sargeant or Whistler palette."

11 Kelley uses his fingers to blend and scumble in the greens and reds throughout the illustration. The result: "a rich, dark, neutral color. My goal was to create a deep neutral without using black."

12 By this stage, the art nouveau column to the left of the woman's head has been basically finished. Here, Kelley lays the underpainting down for the light colors in the woman's costume beginning with pink, after which he will blend in cream, another shade of pink, and a little bit of light blue.

to directly trace photos. Again, this is to allow a spontaneous perspective. (See Figure 3.)

Gathering reference for Kelley is the "recreational" part of any job, usually done on the way home from his studio or in the evening. "I don't feel comfortable leaving in the middle of the day to do research. Maybe it is the Midwestern work ethic, but I plan my days for productive board work."

The two figures in the work each result from the compilation of several reference photos found in books and his own picture files. The four books he used include: "Vogue Book of Fashion Photography," (Polly Delvin, Simon & Schuster, 1979), "Chanel and Her World," (Edmonde Charles-Roux, Vendome Press, 1981), "La Belle Époque," (Morrow, 1978) and "J'aime Paris" (André Kertsz, Grossman Publishers, 1974).

The restaurant specifically evokes the look of Maxim's, "the place to go in Belle Epoch Paris." The seat back to the right of the woman is accurate to reference photos of Maxim's, as is the art nouveau column to her left. For the centerpiece, he referred to photographs of flowers from a guidebook to France. (Kelley is even particular about the truthfulness of his flora.) "And of course my imagination filled in all the little voids."

THE VALUE STUDY Kelley then sketched each of the major elements of his tight thumbnail on separate pieces of tissue and pieced them together. (See Figure 4.) Then he photocopied the collage and penciled in his highlights and shadows. He describes the result as "a little value study; a somewhat finished pencil drawing that served as my main influence for the finished piece. I referred to that more for darks and lights and shadow and highlights than I did my photo references." (See Figure 5.)

After some fine-tuning—Kelley decided at the last min-

ute that the woman looked a bit too emotionally detached, so he redrew her face and pasted it into his value study—he transferred the major lines onto the working surface using the projector. (See Figures 6 through 8.) He uses black Carb-Othello pencils on tan Stonehenge drawing paper taped to foam board; the image area is masked off with drafting tape.

PAPER Kelley uses Stonehenge paper on almost all of his jobs because it has a nice tooth and no visible weave. He switches off between a light gray and two tans offered by the manufacturer and avoids white because he finds it too harsh. "I would prefer a darker tan, but I can't find it. I have looked everywhere for a good colored or charcoal pastel paper without too much weave—Canson has too much weave for my taste—but I can't find one. I used to use photographer's seamless paper because it has a range of colors and a nice weave, but it is not archival. This is the best paper I have found."

PAINTING THE IMAGE

Perhaps the greatest subtlety of Kelley's work begins with what has been his trademark in recent years: a warm-hued palette that is quite apart from the clichéd perception that "pastel" necessarily means wispy, delicate tonal ranges.

"None of the colors you see in my work is the result of a pure, straight-from-the-box chalk. The colors almost always are the result of three or four

CEDAR FALLS, WHERE?

Gary Kelley is trying to explain what the heck he's doing in Cedar Falls, Iowa. "My parents were raised in Iowa, but I was conceived while they were living in Los Angeles. My dad decided he didn't want me to be born and raised there. He wanted me to have small town values and all that . . . . " So they loaded up the car and they moved back to Iowa. Little Gary was probably just starting to get the hang of small town values when, he explains now, "the family decided, well, let's go back and see what California's like now."

That was in seventh grade. It took about a year for his parents to figure out that California still wasn't the place they ought to be, so they loaded up the car again and headed back to Iowa. And the rest is history? Well, not quite. Somewhere between illustrations for the junior high yearbook and the cascade of national awards that now regularly descends on him, Gary Kelley became a great artist, though he's not sure exactly when.

Maybe it was at the University of Northern Iowa where, as a senior in the late 60s, he went through what he calls his "Hell's Angel phase," which culminated in a four-foot canvas of Peter Fonda. Or maybe it was at his first design job at the Rath Packing Company, when he designed a corporate Christmas dance invitation featuring a psychedelic Santa Claus with the words "CHEER" in place of where his teeth would normally be.

Or perhaps it was at Hellman Associates, the powerhouse Iowa design firm where Kelley worked as a designer and illustrator for 14 years. Maybe it was four years ago, when he cut the tether of salary and benefits so that he could forge into his freelance career.

Well, by then, he was *already* a great artist. And by then, he had begun to internalize artistic influences so disparate that he can only ascribe his primary inspiration to an entire period and its assorted movements (1900-1930, and art deco and cubism in particular).

The books in his library may offer some clues, volumes on Guy Pene du Bois, Edwin Dickinson, Edvard Munch, Richard Diebenkorn, Felix Valloton, Degas, Flemish expressionists, early 20th century Soviet artists, Matisse, Frederic Remington, Rockwell Kent, and Tamara DeLempicka among them.

Instead of trying to untangle his inspirations, Kelley says only this: "I don't have any one guru that I always go back to. My influences are eclectic, kind of like my taste in music." Tapes of Ziggy Marley, Andreas Vollenweider, Jimmy Hendrix, Vivaldi, Bach, and Jeff Beck are scattered around his boom box. For the moment.

or five or even six layers. It's a technique borrowed from master painters; it's the pastel illustrator's analogue to repeated glazing. The colors achieve their brightness or density from the layering. I have gotten to the point now that the chalk is incidental. I am using it to achieve effects that are normally associated with paint."

The artist prefers NuPastel over other brands for two specific reasons: They are hard and square. "I like the square edges because it is easy to apply color in the fine corners and edges. They are soft enough, but not too soft and don't crumble on the paper. I have tried Rembrandt and expensive French pastels, but they are too soft. I like to have a little more control than that."

PALETTE With these pastels, Kelley achieves a tonal range that is all his own—a flesh tone, for instance, might be composed of a green pastel "underpainting," and successive layers of scumbled and smoothed-in terra-cottas, blues, lavenders, and occasionally, even pinks. The overall effect, however, is what Kelley calls a "classic" palette—a subtle blend of browns, grays, maroons, deep violets and greens. He happened on the palette several years ago while working on a job for *Connoisseur* magazine (the piece won a gold medal at the Society of Illustrator's annual show last year). He has since made a conscious effort to move his palette in this direction. "Before that I was using warm, sunny colors,

Kelley Work Opposite page, an illustration for CBS Records' "Jazz Masters" series. (A.D. Allen Weinberg); this page, at left, an illustration for "Treasure Island" for Cincinnati's Playhouse in the Park. (A.D. Larry Hanes); this page, above, an exhibition poster for Louisville's J.B. Speed Art Museum. (A.D. Wally Dahman; Agency: Fessel, Siegfriedt & Moeller); above, one of 23 illustrations done for "The Legend of Sleepy Hollow." (A.D. George Peterson.)

more purples, teal, aqua blue, warm ochres, pinks, lavenders—colors that seem to me a little decorative, not legitimate. This palette is more subtle, and not so hot. It's like moving from California to Paris."

UNDERPAINTING The base underpainting of the background consists of a very dark, warm green pastel with some Tuscan red scumbled in. (See Figures 9 and 10.) He blended the colors with his fingers, "which gave me a rich, dark, neutral color. My goal was to create a deep neutral without using black." (See Figure 11.)

This dark underpainting is one of the most important steps in the process for it is here that he establishes values that he will work with until the finish. Choice of color is important. The green and red will eventually yield the warm brown and gray he wants for this piece. At times he may use a more olive green for a warmer appearance or even a purple if he wants a "sunnier" look.

During these early stages, Kelley uses a spray fixative to seal the layers of color, but avoids it as the art nears completion. "It is common knowledge that spray deepens the colors, so once I get to the top layers I don't spray at all so I don't lose the delicate highlights."

THE WOMAN For the woman's dress, he put down pink over the underpainting; on top of that he layered a cream, another shade of pink, and a little bit of light blue to create the hue that is evident in the finished piece. (See Figure 12.) The approach Kelley takes in piecing together an illustration strays from his art school training. "Years ago when I was doing big oil paintings, I was always told to get the entire thing working at once—keep all the parts of the painting developing together. Now, once I get past the basic, dark/light statement all over the whole piece, I concentrate on different little areas around the

13 Kelley decided to make the background a little darker to improve the contrast around the woman's head and shoulders. He also introduced some black around the column, having decided that the combination of green and red in the underpainting was not quite dark enough.

14 "Years ago when I was doing big oil paintings, I was always taught to get the entire thing working at once," says Kelley. Today, though, "I concentrate on different little areas around the piece. And I'll take each one pretty far before I go onto the next one." Here, he adds whites to the tabletop, bringing it up from tan.

15 Kelley uses a deep purple CarbOthello pencil to refine the edges on the dinnerware—one of the few instances where he is able to rest the heel of his hand on the working surface for stability's sake.

16 The artist is striving here to create an "extremely fair complexion" in the woman. "She's supposed to be this aristocratic lady, so I wanted her face to be almost white, to make her look very protected, like she is seldom exposed to the elements." To complement the face, he uses similar colors on her arm.

17 Here, Kelley has roughed in the man's suit. To achieve the brownish gray hue, he assembles a composite of blended and scumbled-in colors: lavender, gray, some reddish brown. The original dark underpainting (red and green) remains evident in the wrinkles and creases in the suit.

18 On the folds of the suit and especially in the highlight areas of the lapels, Kelley introduces some pink, which gives the suit a subtle radiance. "It's always interesting to me some of the things that can happen when you mix colors that you don't think would go together, like pink and brown, or lavender and brown, or pink and gray."

piece. And I'll take each one pretty far before I go onto the next one."

After the woman's costume was nearly completed, Kelley took the background back a little darker to improve the contrast around the woman's head and shoulders. (See Figure 13.) He also introduced some actual black around the column, since he decided his dark neutral was not quite dark enough in this area.

The tabletop was brought up from the tan hue of the Stonehenge drawing paper and light layer of Tuscan red with white pastels. The dinnerware was brought into relief with sharpened, deep purple Carb-Othello pencils, which Kelley uses for details. (See Figures 14 and 15.) This was one of the few instances where he could afford the luxury of resting the heel of his hand on the working surface since the tabletop is close to the edge of the image area.

Next came the woman's complexion. "She's supposed to be this aristocratic lady, so I wanted her face to be almost white to make her look very protected, like she's seldom exposed to the elements." Again, he used purple CarbOthello pencils to refine the fine details, in this case along the woman's hair and eyes. (See Figure 16.)

THE MAN The man's brownish suit is an unusual composite of hues: lavender, gray, some reddish brown. The highlights in the lapels were achieved with pink chalk, and the original dark statement (red and green) remains apparent as the wrinkles and creases in the suit. (See Figures 17 and 18.)

The man's face is the unlikeliest mix of colors: Kelley first laid down teal as the underpainting—"which looks very strange at first, but I've found that different shades of green and blue can be a nice underpainting for faces." Over the teal, he scumbled in a dark terra-cotta color, save for the

man's monocle which retains the hue of the underpainting. (See Figure 19.) The face only began to take on a mortal hue when Kelley layered in some lavender and light blue to highlight facial features. The most delicate details of the man's aristocratic countenance, like those of his wife, were established with purple CarbOthello pencil. (See Figure 20.)

THE FLOWERS Finally the flowers were addressed. The bouquet shares the same dark underpainting as the background of the illustration. The only difference: Kelley scumbled in green on the leaves and dark red on flowers. The petals are highlighted with lavender. (See Figures 21 and 22.)

The illustration had basically been finished in sections, but Kelley did, at the end, give it a CarbOthello once-over to tighten up the edges and develop subtle shadow areas here and there. (See Figures 23 and 24.) If you compare the value sketch in Figure 7 with the finished illustration, you will see Kelley remained faithful to the overall darks and lights he established early on.

What is also interesting about the finished illustration is the overall smooth, nearly textureless surface. The varied shapes, complex values and flawless finish combine to give a painterly rather than a pastel appearance.

THE RHYTHM EMERGES

There is a point in an artist's development where some of the subtleties of intention and technique that were once such a conscious, messy struggle become second-nature. And in becoming second-nature their mystery is restored to the artist himself.

Gary Kelley—though he is constantly pushing the envelope of his talent—has become a master in many ways. And occasionally, it becomes obvious that even he is a bit mystified by the subtle magic in his work.

19 The man's face is the unlikeliest mix of colors: Kelley first laid down teal as the underpainting (left)—"which looks very strange at first, but I've found that different shades of green can be excellent underpainting for faces." Over the teal, Kelley has scumbled in a dark terra-cotta color (right), save for the man's monocle which retains the hue of the underpainting.

20 The face only begins to take on a mortal hue when Kelley layers in some lavender and light blue to highlight facial features. As with the woman, Kelley will go in later with CarbOthello to further refine the man's aristocratic countenance.

21 Surprisingly, the bouquet shares the same dark underpainting as the overall background of the illustration. The only difference: Kelley scumbled in green on the leaves and some dark red on flowers.

22 At this stage, the dark reds and greens have been rubbed into the underpainting. Now Kelley adds the highlights on the petals with lavender.

23 Again, using his dark purple CarbOthello, Kelley tightens up the edges and develops subtle, tiny shadow areas; this is also the point where he goes back and refines the entire piece with the pencil, picking up details wherever needed.

24 After unmasking, Kelley mounts the illustration in its own foam board carton for shipping. It contains four or five layers of foam board—the bottom, three middle layers and a cover.

Those moments tend to come after he has gone through the final, cursory motions—peeling off the masking tape and matting the illustration—which isolate the artwork for the first time from Kelley's messy board. Having labored over the piece for the last two-and-one-half days from concept to completion, Kelley now stands back and takes a fresh look.

"One of the things that fascinates me about the work I've been doing lately," he says, "is that I can break the traditional rules and give it kind of a cubist edge. But then I also can reel it back in." He begins to hint at the internalized deliberations and artistic choices that animate his work, that provide its inner life: "The way the table sits next to the woman; and the way her necklace falls down across her dress; the way her dress accents the back of his head; the way his shadow intrudes on the table—all those things are conscious choices."

In this illustration, as in all of his work, he has controlled his composition without letting it control him. "I've tried to develop a light source, for instance, although I wasn't a slave to it. Each little shadow and the design that it creates is more important to me than the accuracy of the overall picture. For example, I'm going to adjust a shadow if it makes a better looking negative space."

This anything-goes dream-world—where shadows needn't behave, and where a resolutely middle-class woman can dine in blissful elegance—is a suitable metaphor for Kelley's own artistic journey. "What really opened up this direction for me was when I was able to clear out the rules that say 'You can't do that.'" ■

Simon N. Dumenco, a Knoxville, Tenn.-based writer, is an assistant editor at Special Report: Personalities.

White Space: The Prominent Void

Discover where it comes from, what it is, and why it works so well.

By David Epstein

Each changing tide of history brings with it new visions of two-dimensional space. In our time, it is most often applied to that ubiquitous rectangle graphic designers call the "printed page." In the effort to make these pages worth looking at, design "looks" abound. Some last, some do not. One that has endured for decades is the concept of *white space*.

WHERE IT COMES FROM

The use of white space as an element of graphic design began with the European modern art movements of the early 1900s. Its nascent forms can be seen in the Dada and Constructivist designs of the time, which defied all the rules of conventional typography and communication graphics. (See Figure 1.) But it was the De Stijl and Bauhaus art movements that were most responsible for the concept of open space on a page. Out of their intention to formulate a new, comprehensive aesthetic for society, a particular style of graphic design evolved. Generically, we refer to it as the "Swiss School," and it is basically a synthesis of the design principles of those two vanguard movements. The name itself derives from the outpost of Bauhaus advocates who worked in Switzerland—such as the famed typographic modernist, Jan Tschichold—choosing to carry on in Europe after all formal activities of both De Stijl and the Bauhaus had ended by 1933.

By 1939, most of the champions of Bauhaus graphic design had already left a troubled Europe to live, work and/or teach in the United States along with their more established equals

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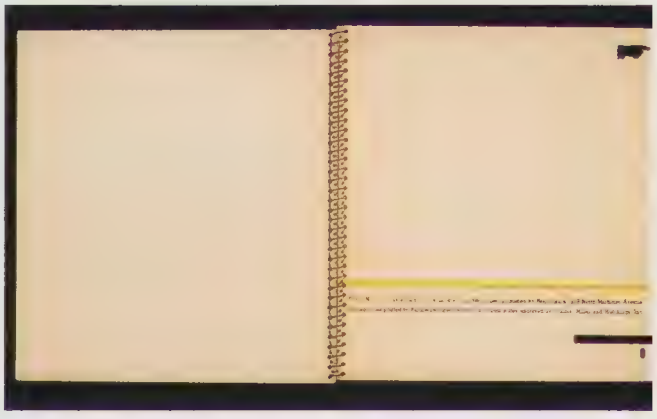

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Figure 1 This rare page is part of an otherwise very traditionally designed English book about World War I (this page, top). The departure from the conservative format of the rest of the volume infers the influence of the European modern art movements of the time. Though not finessed, the diagonal type connecting the two figures across the white page creates an exceptionally strong design. (Designer: Unknown, 1914.)

Figure 2 This 1934 booklet spread by Lester Beall, produced the year after the Bauhaus ceased in Europe, proved that its design principles had American champions (this page, below). Beall was comfortable with white space, broken only by accents of type, graphic elements and primary colors.

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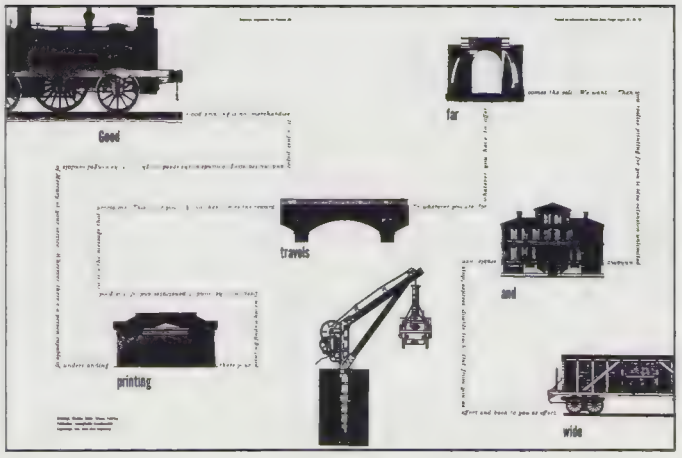

Figure 3 In this unusual 1946 paper company promotion (left top), Bradbury Thompson showed that a train ride across white space country could be fun and still deliver a serious message. The type and pictures are artfully arranged so that everything gets noticed.

Figure 4 This simple, bold magazine cover (left below), designed by a young Paul Rand in 1941, heralded a decade of dramatic changes in American graphic design during and after World War II. The massive letterform is anchored by the contrastingly small color symbols of industry, and all are made vividly clear by the white background. Interestingly, the white space also adds a spatial ambiguity, allowing the design to be seen as both flat and in perspective.

Figure 5 Herbert Matter's "Swiss School" origins are evident in this bold 1946 geometric design for a brochure which was done ten years after his arrival in America (below). As a photographer/designer, pictures were important in much of his work. But abstract solutions like this, though uncommon, were reflective of his European training.

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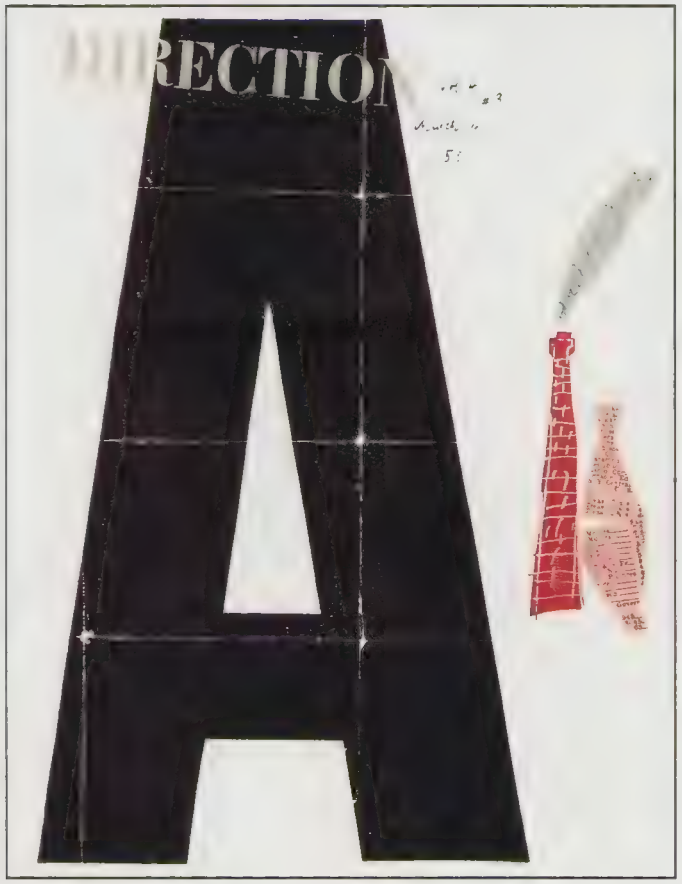

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there. (See Figures 2 through 5.) With this merging of masters, the new graphics now passed into the design soul of America. With a few notable exceptions, it was not really until the mid-to-late 1930s that American graphic designers seriously considered the possibilities of large, dramatic areas of background white on a page. (See Figure 6.)

After WWII, designers were imbued with a sense of mission to change the look of American corporate, editorial and advertising graphics, and that look included a distinct disposition toward the use of white space. (See Figure 7.)

By 1950, white space was virtually synonymous with "good design." Prestigious magazines like *Harper's Bazaar*, *Vogue* and *Vanity Fair* had broken new ground—but one of the most dramatic changes was in advertising. The legendary "conceptual" approach had emerged by the late '40s, and using uncluttered, focused design arrangements was a way to create ad pages of pristine power. (See Figure 8.) The usual banal design treatments of the period were being discarded for strong combinations of words and/or images, dramatically placed on open, white pages. From the standpoint of public acceptance, it was consumer advertising that gave white space its greatest boost.

Any assumption that the "clean" look caught on without a struggle though, is refuted by the publications of that time. The number of airy editorial and ad pages in a typical, early 1950s issue of *Life* magazine, for instance, was no better than four to five percent. And of those, many were merely nonconceptual layouts with words and pictures loosely arranged. (See Figure 9.) But, in the clean vs. clutter fight, more and more professional awards kept going to the white pages, increasing recognition even further.

The wide acceptance of white space in the 1950s, with its ebullient proliferation into the 1960s, marked a golden age of

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Figure 6 It is hard to say if the 1919 post World War I *McCall's* magazine cover (below, top left) was part of the new design trend, or if it was merely a design aberration. The use of white on the page differs radically from the usually fully illustrated, pre-war, magazine cover formats of that period, as in the 1912 *Woman's Home Companion* cover. Nevertheless, it is an unusually early American example of a white space page. (Designer: Unknown.)

Figure 7 White space is the common denominator in these three very different subway station poster designs from 1947 (below, bottom left). In each, the white page assists the intention of the design—as a simple background for a childlike, animated target (left), as a pristine area for the advertiser's message (center), and to illustrate movement and speed a la Futurism (right). Designers: Paul Rand, Paul Smith, Erik Nitsche.)

Figure 8 The Ohrbach's department store campaign of the late '40s is a prime example of the new "conceptual" consumer advertising (below right). Rather than specific fashions, this ad sells the idea of back-to-school childrens' clothes through its use of the then recognizable school-lunch milk bottle. A strong diagonal connects two figures across a white page, thus suspending one child precariously. (Designer: Robert Gage, 1948.)

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8

graphic design, and seemed to round out the reforms begun decades earlier to simplify and cleanse our everyday graphics. (See Figure 10.) Of course, its supremacy could not last. Eventually, it had to share the stage with new design "looks." By the 1970s, it was no longer the ironclad panacea for getting attention that it once had been. Though its use has diminished, it has never lost its proponents, down to the present. While less evident during most of the 1980s, the 1989 *Art Directors*

Figure 9 This 1953 ad illustrates a typically uninspired use of white space of that day (below left). The desire just to look contemporary often dictated the use of open space, without any search for concept or dramatic layout. However, it does underscore the acceptance of white pages as a desirable look during that period. (Designer: Unknown.)
Figure 10 The 1960s was a golden age for advertising design. One of the best white space campaigns of the period sold vodka, featuring a full or partial photograph of the bottle, paired with a mixed drink symbol—in this case, an orange (right top). The copy provided sustained humor, but the visual attraction was really maintained by the distinctive look of the white pages. (Designer: George Lois.)
Figure 11 White space was not very popular during most of the '80s, but there was renewed interest in the format. This sparse 1988 anti-smoking poster uses the white background to focus strict attention on the banana with the warning label, a quiet headline, and the client's logo (right below). It is the concept that counts. (Designer: Tracy Wong.)

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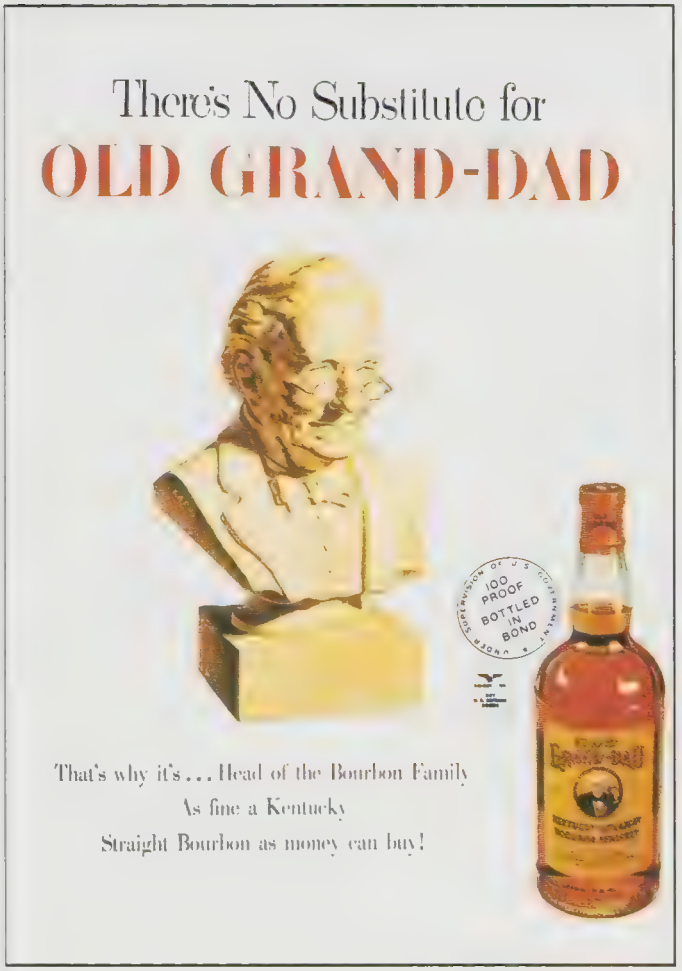
There's No Substitute for
OLD GRAND-DAD
100 PROOF
BOTTLED IN BOND
That's why it's . . . Head of the Bourbon Family
As fine a Kentucky
Straight Bourbon as money can buy!

10

"You sweet doll, I appreciate you. I've got taste. I'll bring out the real orange in you. I'll make you famous. Kiss me."
"Who was that tomato I saw you with last week?"
WOLFSCHMIDTS
WOLFSCHMIDT'S VODKA

11

Would you still eat it?
SURGEON GENERAL'S WARNING
Contains Carbon Monoxide.
Then why do you still smoke?
New York Lung Association.

Annual shows a fair sampling of this powerful format, from conceptual ads to posters. (See Figure 11.) Although the novelty of white space has long worn off since those heady days of change, it is still a powerful tool that should not be overlooked. Nor should it be misunderstood.

WHAT IT IS

While there is a general understanding between designers as to what white space refers to, there is also ambiguity. And though designers use the term easily in conversation, it has so far eluded any formal definition. It seems to require some exploration—what it is, what it's not, and why it works so well.

What is it? Essentially, white space denotes a major use of blank space which, because it is so considerable, assumes a positive presence on a page. Though technically it acts as a backdrop for words and/or pictures, it does not do so benignly. Its very amount is a compelling force. Like an open sky that

Figure 12 Part of a series of 1978 designs for a furniture/decorating company (top left, below), this asymmetrical graphic is a direct descendent of the Bauhaus style. Clusters of abstract shapes in pure colors are balanced against massive areas of white space. These powerful pieces doubled as ads and posters. (Designer: John Massey.)
Figure 13 This dynamic 1959 institutional ad for an energy company shows a mastery of asymmetry, scale and white space (top right, below). The triangle of white in the upper right is used to offset the mass of the portrait at the bottom of the page. The other positive elements are discreetly placed so as not to disturb this balance. (Designer: Erik Nitsche.)
Figure 14 Two very different examples of updated symmetry are the cover of the 1968 premier issue of *Avant-Garde* magazine, which uses some radical, contemporary typography and illustration as a compact column on a white field (below left), and the award-winning 1986-1988 ads for *Rolling Stone* magazine, in which the elements virtually float to the middle of the space (below right). (Magazine designer: Herb Lubalin; Ad designer: Houman Pirdavari.)

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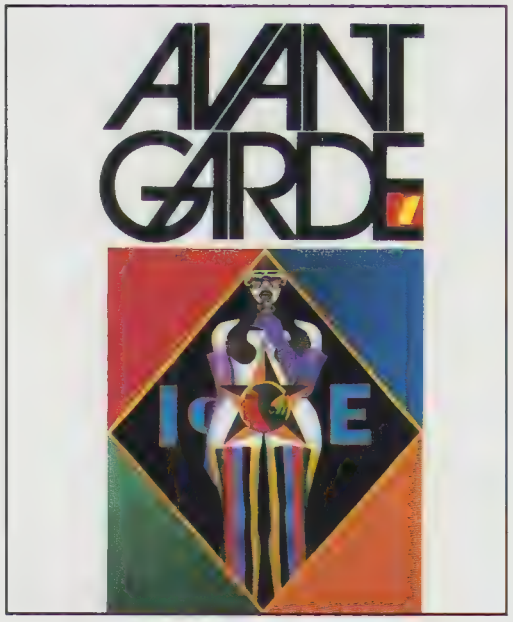
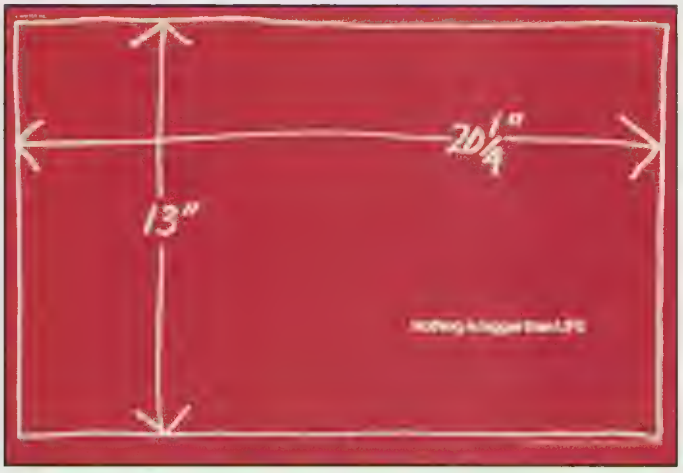


Figure 15 This 1961 ad looks like anything except white space, but it is actually closely related (left). In it, a succinct conversation about cough medicine takes place between two people, at night, in a dark room, so black space is essential to the concept. Only 12 words are suspended in the dark above their heads to tell the story. Such is the minimalism of many white space designs. (Designer: George Lois.)

Figure 16 One of a series of ads which used red backgrounds to identify with the magazine's masthead color, this 1978 spread visualizes the publication's large page size (below). It could have been done with red lines on white space, but this form exhibits very dramatic use of red space instead. (Designer: Jim Adair.)

16

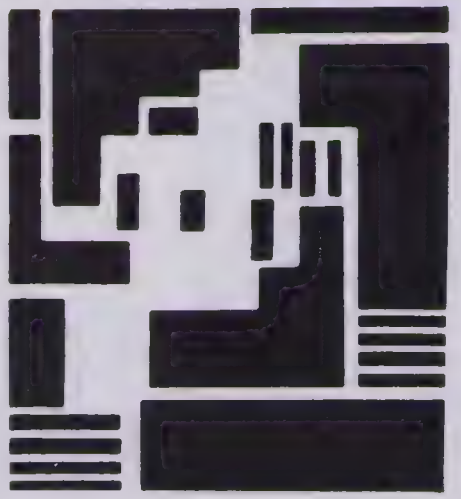


ORIGINS OF MODERN 2-D DESIGN

Once begun in the caves of prehistory, the idea of two-dimensional space traveled undiminished through the millennia to become part of the art of future civilizations—from decorated pottery to illuminated manuscripts, and from Gutenberg's Bible to Audubon's birds.

Contemporary versions of two-dimensional imagery started in Europe during the first decade of this century, and mushroomed in the years between the two World Wars (WWI—1914-1918, WWII—1939-1945). The art and design styles that flourished then would forever change the way that we view the rectangles of communication.

Today's graphic designers owe most to the following art movements. In one way or another, all have played their role in determining how contemporary graphic designers think and work.



DeStijl This DeStijl logo expresses the abstract, geometrical direction of this European design movement.

Cubism (1907-1922) Acknowledged visual style-setter of modern art and design; representations of two-dimensional space without using perspective.

Futurism (1909-1916) Cubism in motion and machines, movement via overlapping images, the seeds of art deco.

Dada (1912-1922) Anti-art, absurdity and humor in art, free forms, experimental typography.

Constructivism (1916-1930) Photomontage, word/picture combinations, typographic freedom, utilitarian design.

De Stijl (1917-1931) Utopian forms, primary colors, pure abstraction, asymmetry, geometrical compositions.

The Bauhaus (1919-1933) Clarity of basic forms, simplified, sans serif typography, asymmetrical design.

Surrealism (1922-1947) Fantasy, symbolism, psychology and the dream-world of the unconscious.

allows us to notice clouds, or birds in flight, white space is a prominent void.

It entered the framework of contemporary graphic design on the coattails of asymmetry, which offered a radical departure from the traditional, down-the-middle, centered layouts of the early 1900s. Early practitioners interested in asymmetry positioned type and pictures anywhere on the page—horizontally, vertically or diagonally—thereby unleashing the design potential of the remnant white mass of the page itself. Thus, expansive areas of indigenous, negative space could dramatize visual information in ways never before seen. (See Figures 12 and 13.) Ironically, this new white look with such power to attract attention actually revitalized the very symmetrical approach to design that it was originally meant to replace. (See Figure 14.)

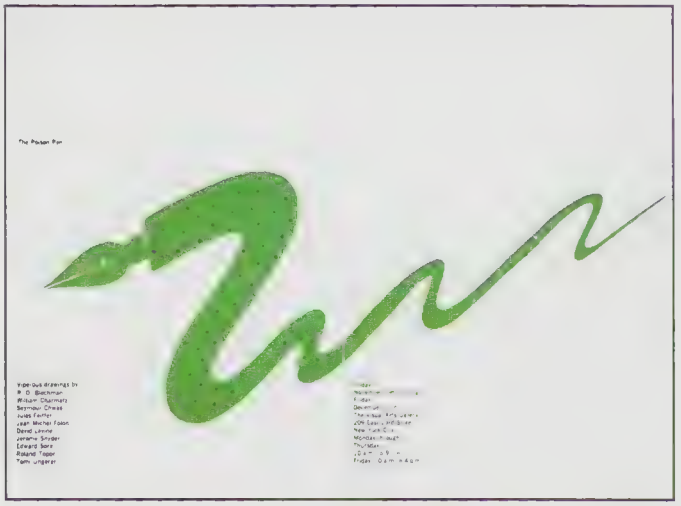
WHITE SPACE IS MORE THAN NEGATIVE SPACE Though able to provide clarity to the printed page it serves so well, its own iden-

Figure 17 The VW Beetle in this famous 1959 ad stands on a very light gray background, but the effect is still that of using white space (below left). The gray ground and the shadow under the car imply reality—that the car was photographed at a distance—and help isolate the small object within a large, blank area, thus reinforcing the "think small" concept and echoing the viewer's prior knowledge about the car's size. (Designer: Helmut Krone.)

Figure 18 This poisonous, pen-pointed snake could find no better space to slither across then that of a white page (right). Its powerful, undulating form is made more riveting by the white space, like a bold signature trailing off. Whimsical and expressive, this promotion for an art exhibit is cleanly and *green*-ly stated. (Designer: Milton Glaser, 1965.)

Figure 19 This 1980 brochure cover for a paper company is a controlled, structured use of white space (below right). By having the type and illustration hug the trim of the page, the huge white area below becomes a positive presence. (Designer: Neil Shakery.)

18



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tity at times becomes muddled because the same phrase (white space) is used to casually describe almost any amount of incidental, negative space appearing on a white page. If the page were a color instead of white, however, similar small amounts of background would be appropriately described as negative space. But since white is the norm for most printed pages, the misnomer flourishes. Such eager deference to nomenclature causes confusion and diffuses the meaning of white space as a design solution. A small amount of residual background—even when on a white page—is negative space, not white space. And although white space is a form of negative space, negative space does not always form white space. It is a matter of degree. Whereas the purpose of negative space is to quietly and beautifully surround the important, positive elements in a design, the function of white space is to actually be one of those important elements on the page.

Pages of total black or color can further confound the issue. Obviously, there are times when white space principles apply to a design, but the massive presence is either black or a color, not white. (See Figures 15, 16 and 17.) It may be a conceptual necessity or just a need to be different. The same basic force is at work, however, and though these pieces do not visually adhere to a strict definition of white space, they are kindred pages.

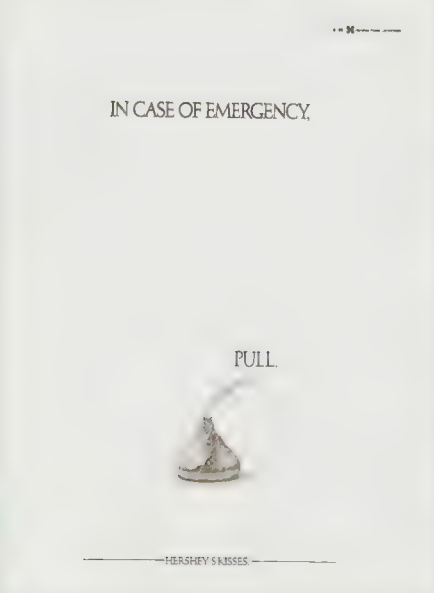
HOW IT WORKS

In the battle for attention, white space offers striking relief among cluttered surroundings. It allows the eye, and therefore the mind, to focus quickly and surely on the message-bearing elements of a design. In the company of equally impressive white space pages, all are apt to be noticed. Among the more usual assortment of layouts—which are teaming with type, or packed with pictures, or covered with color—white space stands out from the crowd.

This implies using white space thoughtfully, with strength and imagination. If used arbitrarily, without a meaningful design function, white space merely becomes empty space, and conveys a lack of purpose—a tentative solution at best, and at worst, an outright boring one. (Refer to the "Uninspired Pages" sidebar within this article.) Because of their openness, empty-feeling designs, unfortunately, do get noticed and, like uninspired actors on a stage, their lackluster performances become all the more obvious. In other words, since white space allows pictures and words to be easily seen and read, it is unforgiving with either lazy design solutions or the careless execution

WHITE SPACE, NOT BLANK SPACE

Palmolive Though the white page is the main part of this concept, the ad is unconvincing. The blank area represents the absence of something—dirt and redness—but the page surface is not a convincing substitute for hygienically clean dishes or skin. So the reader is left with an intellectual understanding of the "clean" idea, but not necessarily with a comfortable acceptance of the proposition. Also, the lack of powerful imagery gives the elements a tentative and fragile presence.



Hershey Here, the nicely designed white page focuses total attention on the words and picture. With this staging, however, there is no place to hide the confusion of the concept. The warm, cozy message of a chocolate treat is undermined by alarming words, expressed in a stiff typographic manner. To the homemaker audience of this advertisement, emergencies are essentially dangerous situations, and this page offers anxiety rather than comfort.

Leather Center The typographic gymnastics of this page attract at first, but the resolution is definitely ho-hum. The audience is drawn into the page with expectations heightened by the clever type arrangement, and then left with obviousness. Though there is a tentative hint of perspective in the initial letters of the headline and in the receding sizes of the furniture, in the end the elements just float aimlessly around the surface of the page. The white space has become waste space.

of good ones. Even the sparest blurb of text on a page, bereft of concept or imagery, needs to be carefully arranged within that bare rectangle. It is not always easy. The difference between "prominent void" and emptiness is, at times, a matter of personal judgement.

Ideally, the use of white space should spring from one of the following design intentions:

1. *As an aesthetic field for focusing attention.* Although originally a choice for mainly typographic solutions (as established by Bauhaus principles), it quickly became a design format that offered a powerful setting for any subject matter. Its success depends solely on the aesthetic arrangement of the visual information. Although non-conceptual in the copy/art "idea" sense, white space in this more abstract form can express the gamut of messages needed, from corporate seriousness to pure whimsy. (See Figures 18 through 20.) Since its inception, white space has been unsurpassed as a background for clear, concise message-making.

2. *As an integral part of a visual concept.* In this approach, epitomized by some of the best conceptual advertising of the past 40 years, the use of white space cannot be separated from the message itself. The idea, and the form that it comes in, are appreciated simultaneously. Without the white space, there would really be no concept. (See Figures 21 through 23.)

3. *As a combination of both visual concept and a field for focusing attention.* Sometimes white space is used because of the high visibility it can add to a concept. Though not inseparable from the message, it makes good sense because it enhances the message. That is, the layout could be designed without the white space, but to do so would weaken the total. (See Figure 24.)

AN ABIDING AESTHETIC Beyond the comments and guidelines expressed here, there can only be opinions and bias. Nevertheless, despite the difficulty of designing the perfect page, there are white space designs which provoke excitement or offer visual comfort, and others which do not. Regardless of rules or principles of design, success or failure still depends on the enduring presence of quality in a design. A good white space page is virtually timeless. The past and present merge. A 30- or 40-year old design might have been done yesterday. Rather

Figure 20 Typographic fun and games set the tone for this 1988 brochure cover (below left). The white background ensures that each and every word has the freedom to be playful. (Designers: Roger Cook, Don Shanosky, Robert Frankle.)

Figure 21 This book has a lofty purpose—to symbolize education through travel abroad (below right). The exquisitely rendered volume flies easily through the air currents of the poster's white space in this beautifully integrated concept. (Designer: Michael McGinn, 1978.)

20

"Are you sitting down?" asked the client. I knew I was in trouble.
and shot right out of the chute
"It's that cold sweat feeling when you know you're going to get
fired."

21

than implying stagnation of any sort, it really suggests an abiding aesthetic that overrides trendy design. If the graphic designer's responsibility over the decades has been to connect ideas and goods with believers and users through the power of the printed page, then white space has helped do the job—prominently. ■

David Epstein is a nationally known graphic designer, illustrator, design educator and contributing editor to Step-By-Step Graphics. *Since he opened his own design firm in 1960, his work has explored almost every area within the graphic arts.*

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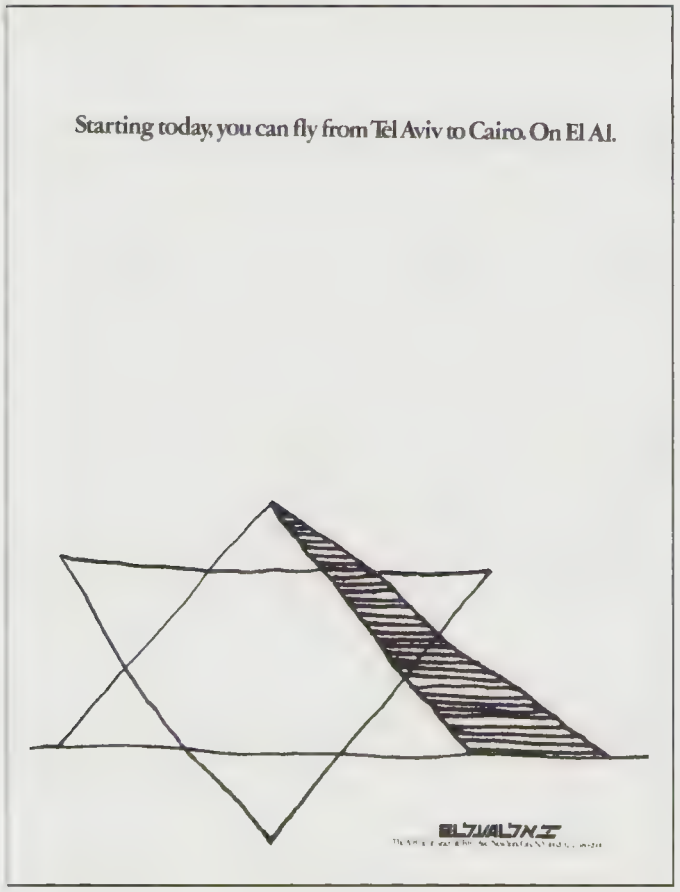

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Figure 22 This daring, acrobatic magazine cover from 1959 takes chances with the model as well as the masthead (top left). Though perfectly perched, the amused reader is aware that her situation is risky. Without the white space there would be no danger. (Designer: Henry Wolf.)

Figure 23 Though not as obvious as the other white space concepts, the white page in this 1980 airline ad enhances the concept by adding the barren, desert/sky landscape expected in the scene (below left). The joined pyramid and star is, of course, the core of the concept, but putting it all on stark white makes it more powerful. (Designer: Joan Niborg.)

Figure 24 Dramatic use of white space certainly adds needed contrast in this 1988 pest control ad by emphasizing the tiny size of this dangerous insect (below right). A different design direction, while being acceptable, might have compromised this important idea. (Designer: Irwin Goldberg.)

Sports Alphabets, From A to Z

Seattle artist Doug Keith creates a figurative alphabet for a San Francisco poster company.

By Joan Brown

thletics rally, beat Seattle 7 to 6 in the 11th inning."

"Sonics looking to LA, season comes down to one game."

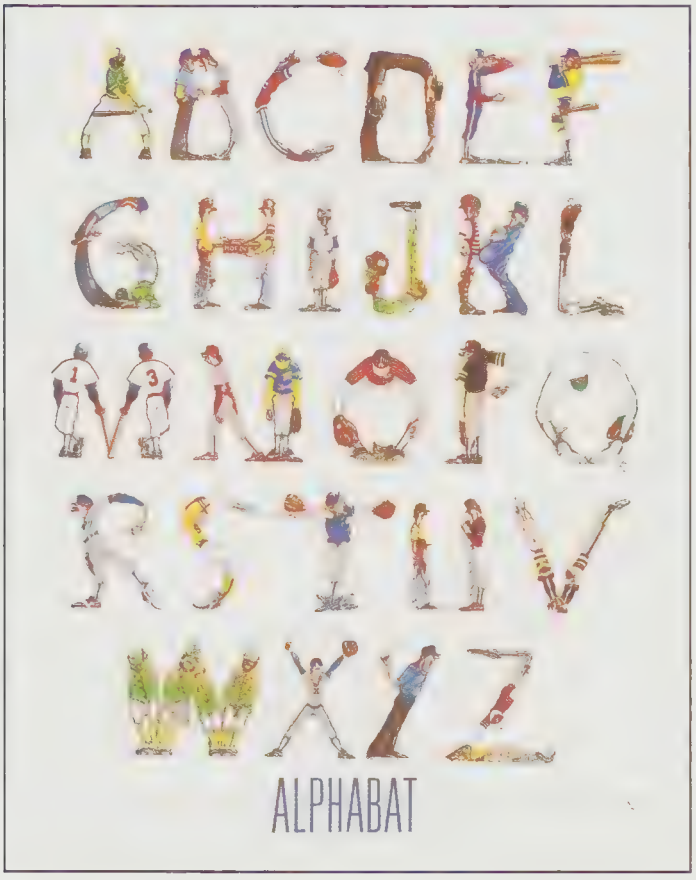
"Seahawks bust Raiders."

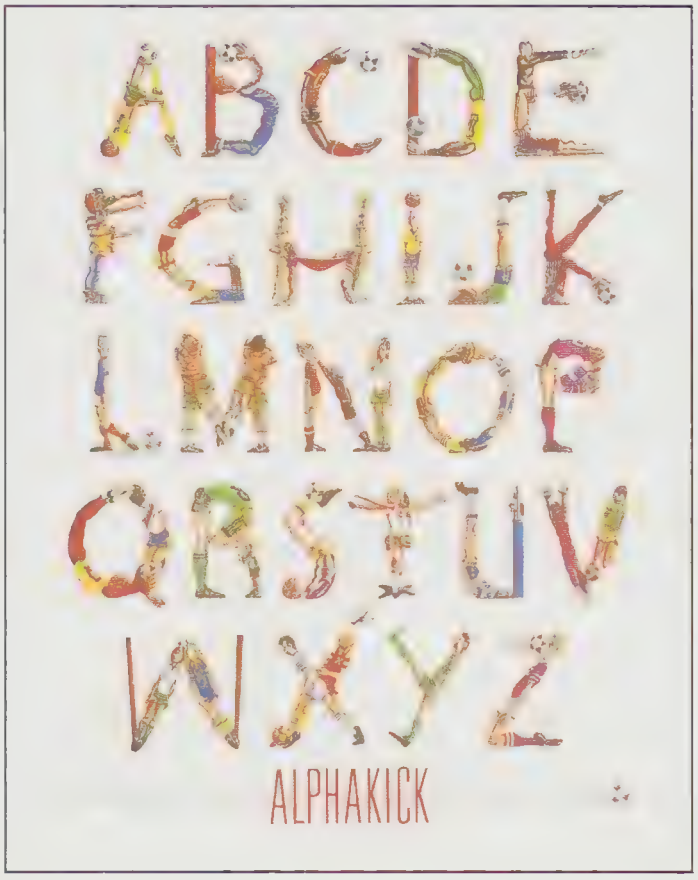
According to Seattle sports fan and illustrator Doug Keith, this is the stuff news is made of. It is also the stuff that inspires him to create some of the funniest figures in the sports world—wonderfully whimsical characters contorted every which way to form letters of the alphabet. Or in the case of this article's featured basketball poster, an "Alphanet."

The fourth in a series for San Francisco poster company, Image Conscious, "Alphanet" joins baseball poster, "Alphabat," football poster, "Alphablitz" and soccer poster, "Alphakick." All have been real crowd pleasers, selling nearly 20,000 copies nationwide—and scoring some victorious royalties for Keith. (The first two posters are in their second printing.)

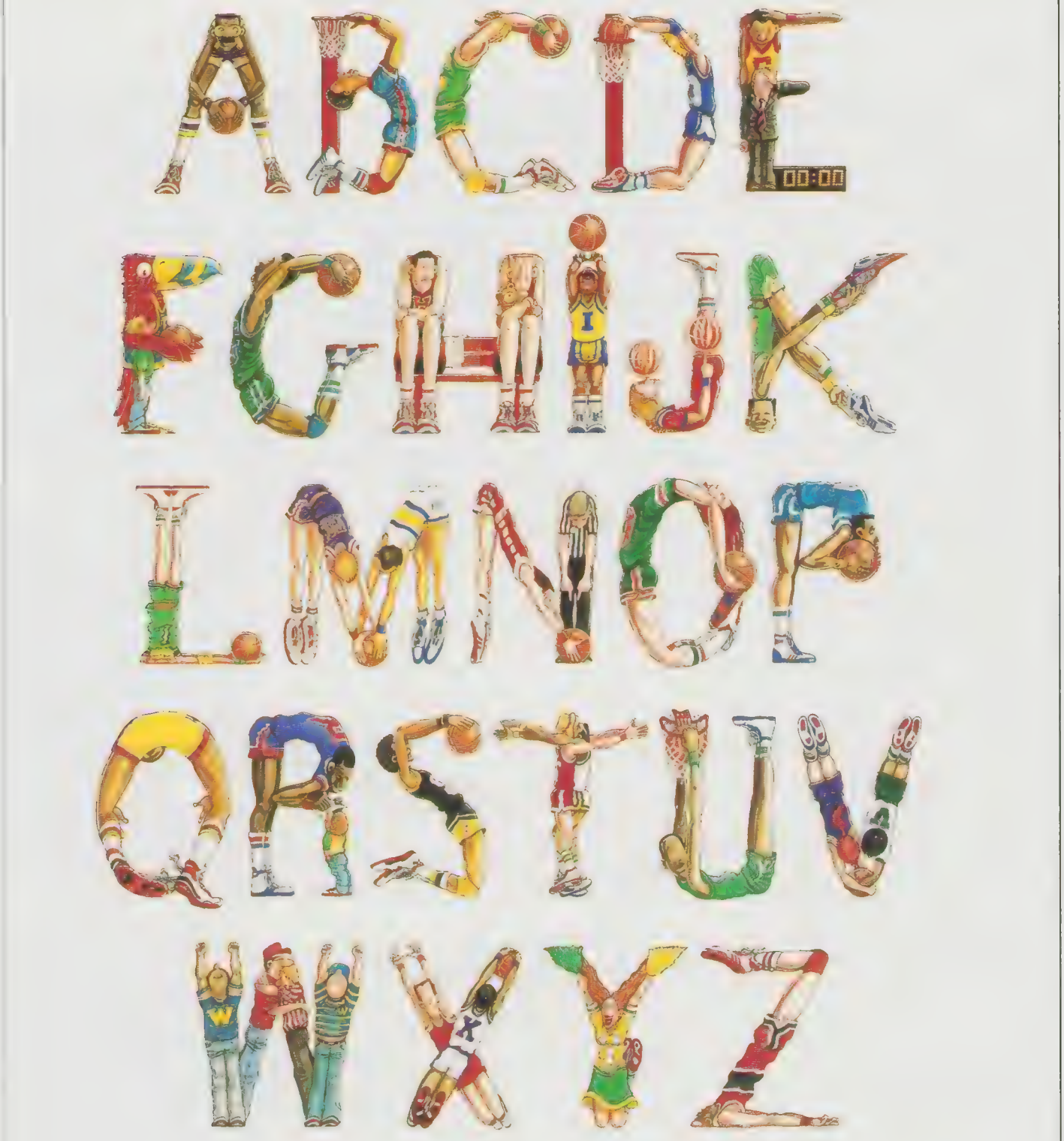
POSTER PROMOTION

How does Keith find himself in the business of creating sporty letterforms? "By design and by accident," says the illustrator. Besides being a sports fan, he is also an avid fan of fantasy—especially the work of J.R.R. Tolkien, creator of the fa-





The "Alpha" Series Like two of his previous posters, Alphabat and Alphakick (below), Seattle illustrator Doug Keith's newest poster, Alphanet combines humorous figure drawings of athletes contorted to form the letters of the alphabet.


ABCDE
FGHIJK
LMNOP
QRSTUV
WXYZ
ALPHANET

mous fantasy trilogy, "The Lord of the Rings." Enchanted by the fact that the adventurous hobbits—Bilbo Baggins, Frodo, and their friends—Keith decided to do something fun in his spare time by illustrating the "Elfabet." Since the elves had legendarily created the letters first, Keith let these mischievous creatures "act out the letters." The results were as playful as the elves themselves.

Pleased with the completed work, Keith thought there had to be a market for it and decided to reproduce his masterpiece in poster form. He had Magna Color Press of Seattle print 1,000 copies, then hand-carried them to Seattle galleries, framing and poster shops. Some shops picked them up and he sold a few copies, but not as many as he had hoped. That was in 1980, and in his estimate, folks were just "gnomed out."

This tale, however, has a happy ending. By 1987, the illustrator had moved his studio from a small loft on the fringes of town to the Prints & The Pauper, a gallery and custom framing shop in Seattle's quaint Pioneer Square district. Gallery owner John Nordstrand exhibited Keith's work, including the "Elfabet" poster, which caught the eye of George Leeson, president of Image Conscious poster company. To Leeson's delight, he discovered that Keith was working on yet another "just for fun" alphabet—this one on baseball. Leeson was immediately taken by the artwork in progress, thinking it had all the ingredients for a marketable poster. It was fresh, funny and colorful. And very doable since Leeson's company had the connections for printing and national distribution, and Keith had the idea. Together, they hit a home run with "Alphabat," the first in the series of sports posters. "The moral to this story," says Keith, "is unless you have money to burn and time to waste, don't try to market a poster on your own. Find a 'manager' who can scout out the market and handle all the details."

FORMAT FOR THE POSTERS After completing the art for the baseball poster, Image Conscious asked Keith to submit a few ideas on how the poster would be designed. Together, he and Image Conscious art director Joan Folkmann selected a 22 x 28-inch format, a size that would fit a standard, off-the-shelf frame. Next, they developed a graphic "signature" for the posters. To suggest motion, Keith and Folkmann created a series of rules that whisked

1 Although Keith's "Alphanet" characters are loose and whimsical, he also wants their uniforms to be "technically correct." His library of *Sports Illustrated* magazines and other reference material helps him, as do frequent outings to Seattle Sonics basketball games. Keith also makes drawings from this material to study anatomy.

2 At first, Keith is all over the court, exploring characters and what they might be doing in some quick thumbnail sketches. The hard part is assigning an action and character to each letter. He strives to incorporate all facets of basketball action—from players to fans, cheerleaders to referees.

3 Satisfied that he has the right ideas, Keith then draws the characters in more detail. The motion and shape of the letter is delineated. Uniforms are identified, and the characters begin to develop personalities.

Photos by Roy Gumpel

4 The situations the illustrator creates are funny and so are the faces of his characters. Keith begins to bring the characters to life, drawing in unique facial expressions and features—a crew cut, a big snozola, an exasperated look.

5 Bright, snappy colors—primarily reds, blues and yellows—contribute greatly to the poster's appeal. Keith plots their placement carefully, first with colored pencils (Berol Prismacolor and Faber Castell Spectracolor) to make sure he has achieved optimum contrast.

6 Once his pencil sketches have been approved by his client, Keith finds that his light box is a real timesaver in transferring the drawings to illustration board. First, he flips the tissue drawing over and re-pencils the outline, fine-tuning the character as he goes.

across the bottom of the poster. Over the ruled lines, they superimposed the name of the poster, Alphabat, which unified the two elements in a non-competitive way. To help this signature graphic read easily and hold together as a tidy unit, they selected Univers Light Ultra Condensed; then they centered Keith's name under it using Univers Black Extended.

This basic design has been used throughout the series, including Keith's newest poster, "Alphanet," which is soon to be released. *Step-By-Step Graphics* followed the illustrator as he researched the subject, created the pencil drawings, inked the final art and painted the images.

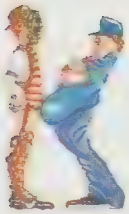
CREATING 'ALPHANET'

Basketball was a natural follow-up to baseball, football and soccer. He began researching the subject by asking himself such questions as: Who are the current superstars? What are the basic plays and movements? What kind of uniforms do the players wear? Where else, besides the basketball court, is the action?

"The best way to research a sport, "says Keith, "is to attend the games." And Keith does just that on a regular basis. Rarely does he miss a Sonics, Mariners or Seahawks home game. The next best research source is his file of sports photos and clippings—and his subscription to *Sports Illustrated*. While he rarely finds inspiration for actual letterforms, he does find details that keep the poster "technically correct"—right down to the kind of socks these athletes wear. In fact, he often makes drawings from his reference material to study anatomy and the action that takes place in a particular sport. (See Figure 1.)

THUMBNAILS: THE WARM-UP Just as Magic Johnson warms up with a few pre-game slam-dunks, Keith loosens up his wrist with a few sketchy pencil thumbnails of the alphabet—just the letters, with no embellishment. During this practice session, he gets the feel for the motion and shape of the letters. Then comes the hard part—assigning an action and character to each letter. (See Figure 2.) He plays with a number of ideas, including athletes struggling for the ball, which forms an "M," and a very tall player signing an autograph for a very short fan, which forms an "R."

Some forms come more easily than others, so the illustrator skips around the alphabet, coming back to the difficult letters. He aims to create players that work



in their "natural letter state," so he is careful not to stretch the idea too far. (The player for the letter "A," for example, is in a natural but humorous basketball stance.) "One of the harder letters is the 'Q,' " says Keith, "because an 'O' with a tail is not the sort of position we normally get into." Keith exaggerates the motion of the player, contorting him into an awkward circular position; by turning one foot out slightly and elongating the character's shoelaces, he forms the "Q's" tail.

While the players on the court may be the game's main attraction, there are other elements that add to the excitement: the cheerleaders, coaches, referees, the hot dog man—and, of course, the fans. Keith integrates them all, bringing even more action to the poster. For example, a kneeling cheerleader with pom pons becomes a "Y," and a mascot and adoring fan form the "F."

REFINING/ADDING HUMOR Once Keith is satisfied with the concept of each character, he starts fine-tuning each one. (See Figure 3.) Still working on tissue with a No. 2 pencil, he draws the characters bigger—and to scale. (He sketches the characters 15 percent larger than they will appear on the poster, which makes it easier for him to draw in minute details.) At this stage, Keith gets serious about incorporating humor, giving each character a style and personality of its own. He draws in the facial expressions, some happy or surprised, others serious or confused—all of them with some element of humor. (See Figure 4.) He determines which characters will be male, female, "red, yellow, black and white." And he indicates some semblance of uniform design.

By this time, Keith has broken the "Alphanet" into five lines, "A" through "E," "F" through "K," "L" through "P," "Q" through "V," and "W" through "Z." This is the format established by previous posters. "Working with five smaller images is easier to handle than one huge image," says the illustrator. He then pastes the pencil sketches onto the illustration board and mails his work to Image Conscious for approval.

Says art director Folkmann, "We hardly ever change anything Keith submits. We just love his work; however, there was this one crazy 'Q'. . ."

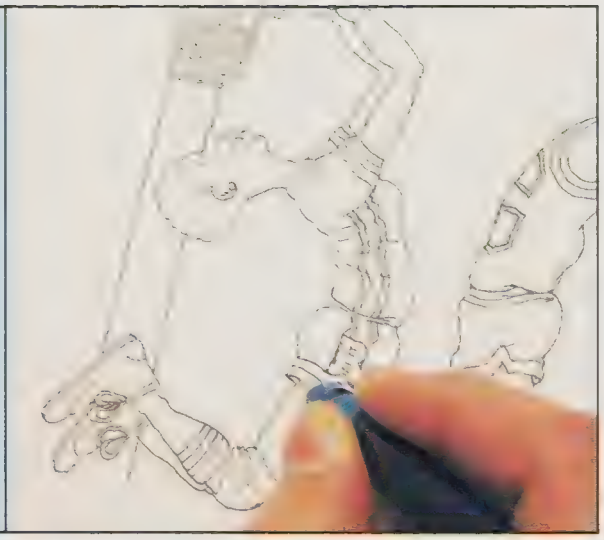
COLORED PENCIL SKETCHES While the folks at Image Conscious are chuckling over Keith's proposed artwork, the illustrator

7 Keith then places the re-penciled drawing on a piece of illustration board (Crescent, medium weight, cold press, No. 310) and burnishes the figure he has just traced onto the board.

8 Working on the illustration board, Keith becomes detail conscious, drawing in all the little nuances that add interest to each character: stripes on shirts, shoelaces on shoes, tread on tennies. He takes care not to duplicate the colors or exact team uniforms of any professional team.

9 At first glance, the viewer probably does not notice that the character "V" also wears the letter "V" on his shirt. But that is what makes Keith's posters fun—the viewer constantly discovers new and fun things. But again, his concern is also practical: To avoid a licencing conflict.

10 Using a technical pen (Rapidograph) with a No. 0 tip, Keith outlines each character in black ink. This black line works to contain and separate areas of color. Keith then erases the pencil lines, leaving a clean surface on which to paint.



11 Using Winsor & Newton gouache, Keith begins laying down the color. Flesh tones are custom mixed and applied first, establishing the personality of the character. Says Keith, "I could paint the jersey first, I guess; but I'd rather start by looking into the player's eyes."

12 One by one, the letters bring the magic of color to the poster. Keith keeps his colors bright, pure and intense. Color application is fairly simple: He lays in a color, then creates dimension by lifting some of it out or leaving an area white to create highlights.

is thinking about solving color problems. Using photocopies of the artwork, he experiments with colored pencils, which he prefers over felt-tip markers because they do not bleed through the paper. (See Figure 5.) Keith also prefers to work with primary colors—bright reds, blues and yellows—because they are fun and sporty.

Starting with the letter "A," he lays down the color for each character, being mindful that he wants good color contrast from one character to the next, as well as from one line to another. After he has colored each of the five alphabet lines, he pieces them together as they will appear on the completed poster and checks the color for variety and position.

CREATING FINAL ART

With the artwork approved by Image Conscious and the color planned, Keith is ready to create finished drawings. Rather than redrawing each character on illustration board, he turns the rough artwork face down on his light table and traces the lines. While he is penciling, Keith also fine-tunes each character, making a hand bigger or smaller, for example. He then flips the artwork over and burnishes the lines he has just traced onto the illustration board. (See Figures 6 and 7.)

Working directly on the illustration board, Keith firms up the lines he has traced and finesses the characters even more by adding detail to their uniforms. (See Figure 8.) Because of licensing restrictions, Keith has to be careful not to replicate any one particular team's colors or jersey numbers. Instead, he assigns each character a jersey letter. Not coincidentally, that letter is the same one that the character forms. (See Figure 9.)

INKING AND PAINTING To contain areas of color and to give the characters a sharp, crisp appearance, Keith outlines the drawings with a black technical pen (Rapidograph). (See Figure 10.) He uses a No. 0 tip, which produces what Keith considers to be the perfect line width for the scale of the drawing. Inking completed, he carefully erases the pencil lines so that he has a clean surface on which to paint. (He uses a soft, kneaded eraser so he does not damage the surface of the illustration board.)

Using his colored pencil sketches as his guide, Keith then begins painting the characters, one at a time, working from light to dark. The illustrator prefers to use Winsor & Newton gouache, but instead of

painting stage is to bring his letter characters to life. He begins by painting the faces, and using the same already mixed flesh tone, he then covers the legs, arms and hands. (See Figure 11.)

But instead of applying flesh tones to the rest of the 26 characters, assembly line fashion, Keith chooses to finish painting each letter before moving on to the next. For him, it is important to "become involved" with the letter, develop it fully by painting the uniform, accessories and all details before moving on to the next character. Keith estimates that it takes him between 15 and 20 minutes to paint each figure. (See Figure 12.)

Depending on the size of the area being painted, Keith uses Nos. 0, 3 and 5 brush-using color directly from the tube, he mixes many of his colors, especially those used for facial skin tones. And he never, ever cleans his palette. "I never know when I might accidentally discover a wonderful new color; I just let it dry up and add water when I need it again," he says.

Just as a portraitist transfers his model's personality to canvas, Keith's goal at the

AN ALL-AROUND SPORT

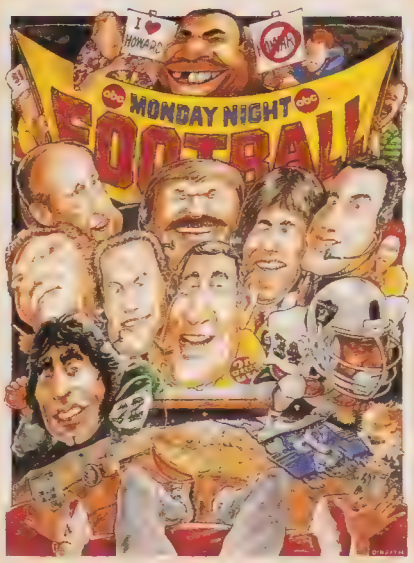
Like a wide open split end, Doug Keith is taking advantage of a good pass and running with it. Clients ranging from *Sports Illustrated* to a variety of professional athletic teams have been knocking on his door asking for his sporty letterforms. In fact, for the past year, the illustrator estimates that his humorous, gouache alphabets have taken up as much as 80 percent of his time.

The Oakland Athletics picked up his "Alphabat" poster and ran it in an opening day kid's program guide. *Sports Illustrated*'s Editorial Projects Director, Larry Keith (no relation) saw the Alphabat and commissioned Keith to illustrate a series of poster-of-the-month inserts (12 in all) for *Sports Illustrated For Kids*. Keith lettered the first name of such sports greats as Babe Ruth, Magic Johnson and Jose Canseco.

Still more lucrative projects poured into Keith's studio: Christmas cards for *Sports Illustrated* and the Seattle Mariners and T-shirts and sweatshirts for the University of Washington Huskies. As of this writing, Keith was negotiating with the National Football League about creating an alphabet illustrating the individual teams in the league—a "B" for the Broncos, a "C" for the Cowboys, and so on.

The artist's athletic interests keep growing. Other interesting sports projects Keith has worked on include a commemorative poster for the 1990 Goodwill Games; a super-graphic for the Mariner's dugouts in the Kingdome; and a special *Sports Illustrated* insert, "The Super Bowl Times."

Hailing from New Jersey, Keith graduated from the Newark School of Fine and Industrial Design, where he majored in pictorial illustration. After working in a series of design-related jobs, he moved to Seattle in 1979 to work for Boeing. In 1982 he opened his own studio. In addition to his sports commissions, he works with a number of Seattle ad agencies and other clients such as the *Seattle Times*.



Collage/Mixed Media
In the unpublished illustration below, Keith departs from his letterform style to create a softer, nostalgic look at baseball. The work at left was done for a 20th anniversary special issue of *Sports Illustrated*, in September 1989. (A.D. Susan Zoppi.)

es (Winsor & Newton). He has even cut the tip off the end of one brush, squaring it up to give him a flat edge with which to paint the letters on the jerseys. Color application is fairly simple: Keith lays in a color, then creates dimension by lifting out color, leaving an area white to create highlights or adding a darker tone to create shadows. (See Figure 13.)

Once all the letters have been painted, Keith again outlines them with his technical pen, fattening the lines here and there and concealing any watercolor that may have overlapped the original line. This second inking application gives the color more clarity, makes the drawing pop. (See Figure 14.) He then paints in highlights with white gouache—wherever he thinks the letter needs brightening up. (See Figure 15.)

PRINTING THE POSTER

The completed artwork is sent to Image Conscious, where art director Folkmann coordinates production and printing. The five letter boards are positioned on a sheet of acetate, spaced proportionately, and treated as one separation by ColorTech of Redwood City, Calif. The artwork is scanned on a digital scanner, then reduced 12 percent to accommodate the standard 22 x 28-inch size poster. (Remember, Keith works slightly larger than actual size, so characters must be reduced from 4¼-inch to 3¾-inch.) Because the illustration board contains a certain amount of "peaks and valleys," the scanner reads a two to three percent dot pattern in certain areas. To ensure that only pure white paper shows through, a mask is created for each letter, and the dots are dropped out. The poster is printed on a four-color press.

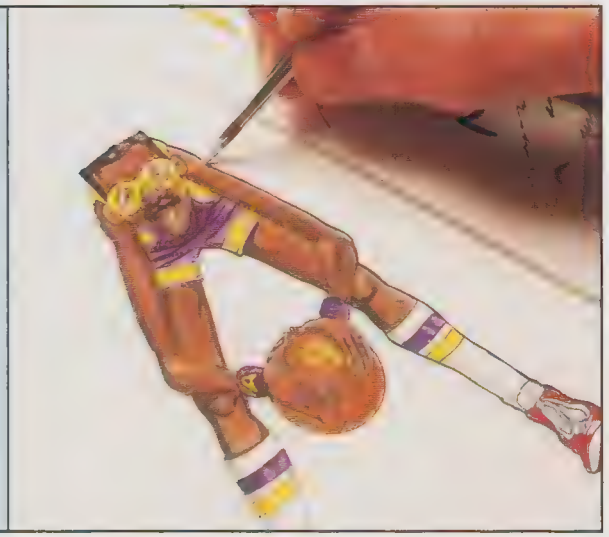
Does Image Conscious have plans for future alphabet posters by Doug Keith? "Perhaps," says Folkmann, "there has been a lot of interest expressed in seeing something for the ladies—maybe a gymnastics or dance poster." Who can tell, there soon may exist a Doug Keith typeface for every conceivable sport. Alphanastics, Alphabowl, Alpharock/Alpharoll—the sky seems to be the limit. ■

Freelance writer Joan Brown puts the words to many of the posters, brochures and advertising campaigns created by Seattle designers.

13 To further add dimension, Keith mixes a darker tone of certain colors and adds shadows where needed, as he does here with the basketball and the uniform. While painting, the artist uses Nos. 0, 3 and 5 Winsor & Newton brushes.

14 Once all the letters have been painted, Keith outlines them again with his technical pen. This second outline conceals any paint that may have overlapped the original line and helps define and strengthen the color.

15 As a final step, Keith brushes in highlights with white gouache to give "depth of character." What was once a somewhat flat image now has a three-dimensional quality, its dense black outline and vivid color making it pop off the page.



Wallpaper and Fabrics By Design

Karen Skelton parlays her print skills into a line of children's fabrics, wallpaper and related products inspired by familiar childhood tools.

By Susan E. Davis

"You shouldn't work for anybody," Karen Skelton's boss kept telling her, until one day she decided to take his advice. This simple, but momentous act prompted a complete change of thinking, and a major career transition, from working as a full-time graphic designer to living and working on spec as a product designer.

What added clout to the statement was that it came from veteran designer Milton Glaser, whom Skelton credits with being her teacher and mentor. Glaser taught her to think and work in terms of total concepts, which she says gave her the background and experience she needed to make the big move. "Doing graphic design is satisfying," says the energetic 43-year-old Skelton. "It's a very intellectual process that requires the ability to observe and retain lots of information, in addition to insight, integrity, determination, and a desire to always look for unique, interesting and appropriate ways to solve problems. But in the end it's the client's needs that are most important, not my need to be personally expressive. And ever since I took a course called 'Design and Personality' from Milton at the School of Visual Arts in 1979, I'm finding more and more that I need to be personally expressive."

Classmates Graphic designer Karen Skelton's extensive fabric and wallpaper collection, manufactured and distributed to the trade by F. Schumacher & Co., includes 14 wallpaper, five border and six fabric patterns in dozens of color variations, samples of which are shown here. Six months in the making, this collection is Skelton's first venture into product design.

Although Skelton says she always tried to find ways to be personally expressive within the parameters of each design problem, ultimately she believes, "You're really creating pieces that people are going to throw away—unless something becomes a collector's item, which rarely happens." Because of her love for home—and all the things one does there—she realized she "wanted to create things that people would want to buy and take home."

Haunted by Glaser's words, Skelton decided she really wanted to get a closer look at product design. So after five years, she left Glaser's studio and became a graphic designer for Gear, a marketing and design company in the home furnishings industry. During her year and one-half there, which Skelton regards as an essential stepping stone in her career, she observed how to do product design.

"Working for Gear didn't help me directly," she admits, "but it inspired me more. And it proved valuable in two important ways: I realized that my graphic design discipline would help me create 'concepts,' not just decorative motifs, and that graphics play a very important role in promoting and explaining collections to customers."

Once Skelton felt she had learned all she could there, especially from Susan Baum, who was the design director of Gear Kids for many years, she left "the world of gainful employment and entered the world of product development, otherwise known as working and living on spec." (See the sidebar "Living and Working on Spec" for Skelton's five survival tips.)

ORIGINATING A CONCEPT

Unlike graphics, where a client usually comes to the designer to solve a problem, a designer creating wallpaper and textile lines must first originate the idea, produce some visual samples, then hit the streets

and sell the concept to manufacturers.

Skelton's first idea was to create a concept for a line of children's fabrics and other products based on her favorite childhood tools—a composition book, a ruler bordered by animals, Avery labels and Scotch brand transparent tape. (See Figure 1.) "I don't know how I got the idea; it just occurred to me," says Skelton. Explaining why she began with designs for children instead of another age group, she says, "I feel more comfortable in the kids' area because it's a place for me to learn, like a kid."

PRESENTATION BOARDS Before going ahead with her concept, Skelton teamed up with textile designer and artist Dorothea Suino, whom Skelton had met while working at Gear. Later, the two formed a company, Bellwether Design. They chose the name to signify leadership and forward thinking. Though Suino is no longer a partner, Skelton continues to use the name.

In preparation for their sales calls, the designers spent a weekend creating about 20 presentation boards based on the concept, which they called "Nightschool," using a variety of materials: stats, Pantone paper and film, press type, gouache and magazine clippings.

The art was then mounted on 15 x 20-inch Bainbridge 172 boards. (See Figure 2.) The boards showed samples of the patterns in various colors, as well as applications such as nightshirts, and duffel and sleeping bags. One of their many ideas was to incorporate labels into the material so kids could print their names with textile markers onto the products.

FINDING A MANUFACTURER

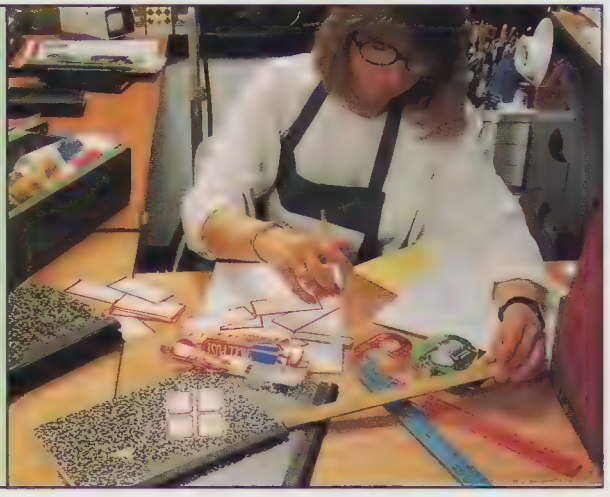
About one month after they began making the rounds to fabric manufacturers, Suino suggested they approach F. Schumacher & Co., a manufacturer of high-quality fabrics, wall and floor coverings and other products in the wholesale decorator and interior design market. A family-owned company, Schumacher has shown consistent growth over the years.

According to John Quilter, the Schumacher vice president responsible for styling printed fabrics, "I met with them and was immediately impressed by their sophisticated concept. It was very stylish, not run-of-the-mill juvenile. It had a point of view. We only do a juvenile line every three or four years, and we rarely work with a designer who comes to us with an original idea. Usually everything is farmed out to our freelance designers. We try to maintain very high standards; we only want the best quality."

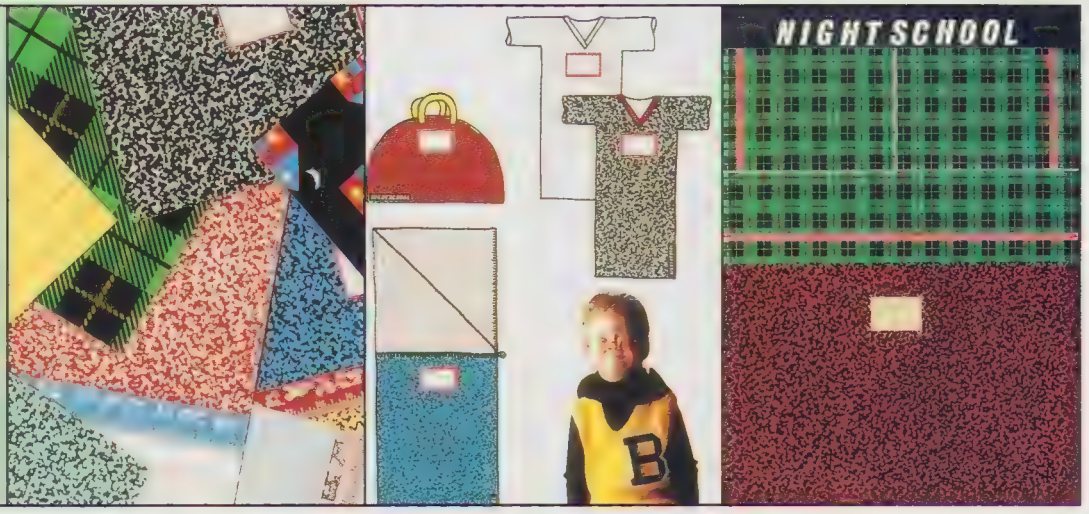
SIGNING A CONTRACT In December 1987 the team signed a contract and exclusive licensing agreement with Schumacher for 14 wallpaper, five border and six fabric patterns to match six of the wallpaper designs. (Although no products will be manufactured from the fabrics, they are available for decorators or individuals who want to make their own draperies, pillows, comforters, and so on.) As part of the contract, the designers received a production grant (separate from the royalties) to create the artwork. They also negotiated a separate fee to design the collection's wallpaper and fabric catalogs.

Although delighted with the contract they signed, they continued to try to interest other manufacturers in producing their designs for bedding and paper products. According to Skelton, Schumacher holds the copyright for only the patterns and colors exactly as they appear on the wallpaper and fabric. This leaves

1 Childhood tools everyone takes for granted—a composition book, a ruler bordered by animals, Avery labels and Scotch brand tape—inspire Skelton and then-partner Dorothea Suino to design a line of products for children. "As a product designer, you create and present the concept first," notes Skelton, "in order to get a manufacturer to produce it."



2 Working around the clock one weekend, Skelton and Suino prepare about 20 presentation boards, which they paste on 15 x 20-inch Bainbridge 172 boards. The artwork was created with a variety of materials: stats, Pantone paper and film, press type, gouache and magazine clippings. For example, the red rule is actually Pantone paper with white press type, and the "Nightschool" logo is a small gouache painting.



Photos by Peter Bittner

Skelton free to adapt the design for other manufacturers by using different colors and slightly different design and scale. In fact, in late May, Skelton signed a contract with a major retailer to adapt these designs for three categories of retail products: fabrics, linens and paper goods.

CREATING FINAL ART

Although they have an initial concept and a contract, the next job the designers face is to further develop and then finalize their ideas. One important change that took place was that the designers renamed the collection "Classmates." The switch came about because they realized "Nightschool" could have negative connotations among children. (Some people felt the concept was either too scary or too sophisticated for children.)

The designers also knew they had to come up with some figurative patterns, which were not part of the initial presentation. They do this by preparing a series of black-and-white roughs in the form of photocopies, which they present to Schumacher. The designers discuss their ideas with Quilter, wallpaper stylist Vivian Infante and other Schumacher personnel, and they narrow down the choices to the 14 wallpaper, five border and six fabric patterns needed. Several of the rejected ideas include finger painting and map graphics that Quilter felt did not reflect the image Schumacher wants to present.

Says Quilter about the role he played in helping Skelton and Suino produce their collection, "Though they were all Karen's designs and her choice of colors, I did advise her to make some changes and additions, mostly colors that might work better that she hadn't considered. My role was to advise her and edit her collection."

Once all of the choices were made for the patterns, Skelton and Suino began preparing final art for the collection. This is an extremely important stage because what they create is actually used as mechanical art. For example, if a particular design calls for six colors, six pieces of film will be made from the art, one for each color. The final art is sent out to a screen engraver who covers the art with a transparent film and paints out the design elements in a particular color with an emulsion (tusche). The art is then shot, producing the film for that color. This procedure is repeated for each color.

How the designers create the art for two of the borders, a wallpaper and a fabric design, as well as how Skelton adapted an illustration into the design for a rug, is demonstrated next.

THE ANIMAL RULER

The first concept Skelton decides to develop is a "ruler" wallpaper border with animals marching along the bottom. Her primary reference is one of the children's rulers which first inspired her.

Noting that not all the animals on the ruler were acceptable, Skelton goes to her reference library in search of "Early Advertising Art" (Dover, 1947), where she finds animals drawn with the same crude simplicity as the ones on the ruler.

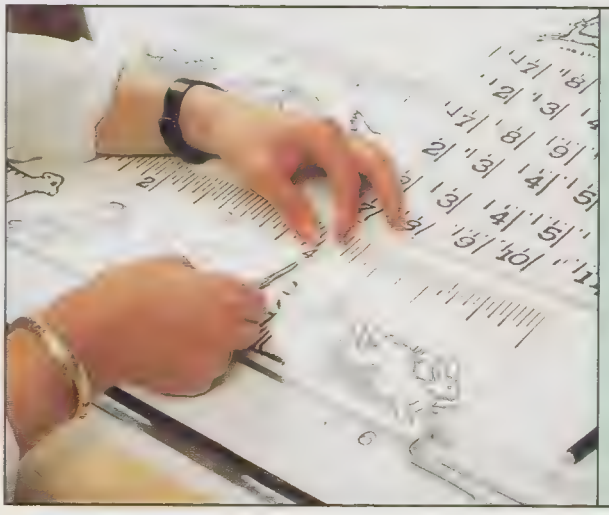
After photocopying rows of animals from the book, enlarging them approximately 300 percent, she cuts them out in strips and pastes them on a sheet of white paper. Over that she tapes a sheet of acetate so she can trace and redraw the animals to her liking. She prefers to work on acetate because the paint is easily removed in case she wants to make a change.

Skelton then cleans up the outlines on the overlay with a brush loaded with white gouache. (See Figure 3.) To complete the artwork, she photocopies the acetate drawings, then, if needed, reinforces some of the black lines with a technical pen.

She repeats the same procedure for the drawing of the ruler, then has the animals and the ruler photostatted so they will fit proportionally on the 5½-inch high border. Then she cuts out all the elements and, after coating the stats with rubber cement, pastes them on the final mechanical, carefully positioning each animal and number. (See Figure 4.)

After making a photocopy of the mechanical on acetate, Skelton tapes it to her lightbox and covers it with a sheet of white 1-ply Strathmore kid finish paper. Assembling the gouache paints she has

3 To create a wallpaper border pattern based on the ruler, Skelton photocopies animals from "Early Advertising Art," enlarging them 300 percent, and pastes them on a sheet of paper. Over that she places a piece of acetate, on which she traces and redraws the animals. With a brush loaded with white gouache, she cleans up the animal outlines.



4 After having enlarged photostats made of the animals and the ruler, Skelton cuts out the elements, covers the backs of each with a coat of rubber cement and carefully positions each number and animal on the final 5½-inch mechanical.

previously selected for the border (lilac, orange, green and pink, which she mixes with Winsor & Newton colors), the artist first paints an initial sketch on acetate to determine color placement, then completes the color mechanical for the border on the Strathmore paper. First she paints the background yellow, then completes the animals. (See Figure 5.) Since the same border will be available in six different color combinations, or what is referred to as colorways, the designers also create croquis, which are smaller samples of the art in the other colors. In this case, the croquis are painted with gouache.

For this border, Skelton works in short strips; the complete 36-inch mechanical is finally pieced together when the border is screen printed by hand. Up to 12 colors can be used in the process; however, the more colors, the more expensive the product. The final pattern, called the "Ruler Border," makes a strong graphic statement among several other wallpaper and fabric patterns in the collection. (See Figure 6.)

ANIMAL STAMPS DESIGN

To ensure a mixture of small, medium and large patterns in the collection, which is known in the trade as "styling the line," Skelton decides to use the animals again, this time at a reduced size for a fabric design. However, now she scatters the animals at random amid the ruler numbers in a version she calls "Animal Stamps."

Repeating the process she used to create the border, she reduces the animals and numbers on her copier and pastes up a mechanical, which she then has photostatted. Over the stat, she tapes a sheet of vellum and indicates her color choices with Prismacolor pencils. (See Figure 7.)

But again one color variation is not enough, for this and most of the other designs. Schumacher requests that Skelton

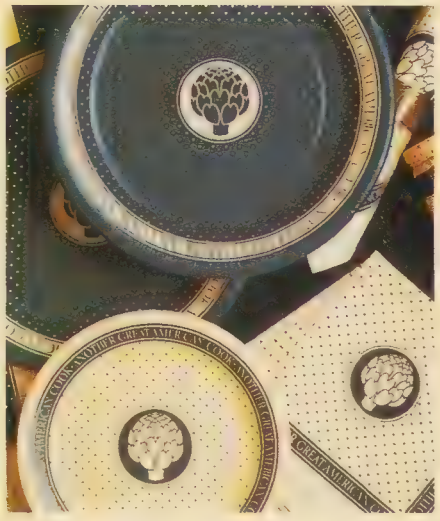
LIVING AND WORKING ON SPEC

Living and working on spec—or striking out on your own as an entrepreneur—involves a lot of risks. But it is also a choice—and that is why Karen Skelton is doing it. She is choosing to make the transition from graphic designer to product designer. As she says, "No one is asking me to do it, not even the manufacturers. It's the only way I can fulfill my dream."

The one thing that has sustained her entrepreneurial spirit when checks have not arrived as promised or her bedding concept was turned down by another major retailer is the belief that someday she is going to make it. "I know it's going to happen," she asserts with a winning smile. "I just keep working at it. I've always been told that determination, hard work and drive are the things you actually need to succeed. Talent is really the smallest part. So I'm going for it."

While a positive attitude helps, here are some hard-earned tips she hopes will assist other graphic designers contemplating a similar career move.

1. *Be prepared to do a lot of work upfront.* The most crucial aspect of product design is developing the concept. In addition to analyzing the marketplace and locating the appropriate manufacturer, who can then reach the right customer for the product, the designer must invest a huge amount of time and energy in preparing a comprehensive presentation to pitch to the manufacturers.



"The only way I can reach the customer is to do all the work first," relates Skelton. "Then I see if a particular manufacturer is looking for what I have. After the first sale, the door is open, but you have to start all over again each time. Even if you've done something with them before, they don't call you and say, 'Now could you do us a collection on birds?' First, you have to show them exactly what you're going to do with an idea."

2. *Don't count on making money for a long time.* "It's hard to get dressed up everyday, haul the presentation around, and keep making it again and again, and you're not working or making any money," notes Skelton.

Yet persistence pays off. In December 1987, about one month after she created it, Skelton sold her "Classmates" line to F. Schumacher & Co. Though the first royalty check was for $5.02, Bellwether Design, Skelton's company, has since received much bigger checks. Projections are that the line could earn as much as $100,000 for the designer and her former partner over the collection's average four-year life span.

3. *Develop other sources of income.* Skelton has kept herself afloat by continuing to work as a freelance graphic designer. Several ongoing accounts include Wings Over the World (WOW), a manufacturer and distributor of gift

provide another set of croquis in the color combinations she wants for each pattern. So for "Animal Stamps," for example, Skelton produces at least 12 variations of the basic design. The designs on the croquis are photocopied, statted or hand painted on acetate. This is placed over a solid background, usually painted with gouache. Eventually only four of the color variations were manufactured. (See Figures 8 and 9.)

TEACHER'S PET BORDER

Knowing the collection needs additional pictorial imagery and admitting she was then intimidated about drawing, especially after working for Glaser, Skelton sought out her friend Simms Taback, a talented artist who has illustrated many children's books over the past 30 years. He agreed, in exchange for a small percentage of the royalties, to let her adapt as much of his work as she needed.

After scouring through piles of Taback's books, Skelton selects a tiny pen-and-ink drawing of a teacher leading a line of children, which appears in the "Scholastic Early Childhood Teaching Guide" (Scholastic Book Services, 1981). She wants to turn it into another border pattern. Using the enlarging feature on her photocopier, Skelton blows the drawing up until the figures are approximately four inches high.

To rework Taback's drawing to suit its new application, Skelton lays a sheet of vellum over the photocopy and outlines the figures with a black Pilot razorpoint pen, modifying and refining the figures as she works. "I smoothed out lines, put in smiles on the kids' faces and added a few animals, a couple of birds, a cat and a rabbit," she relates. (See Figure 10.)

Then the artist takes time to work out several color schemes for the piece, running her trials by Taback. "The colors she

items, and the architect and industrial designer Emilio Ambasz. In fact, an unusual folded poster she designed for Ambasz illustrating new Colorcore Formica has won several design awards.

Skelton is also working on some small product ideas that she can manufacture herself, including a shower curtain based on the "Classmates" concept. She is hoping WOW can distribute them through its already established outlets. A pocket-sized game she designed for George Beylerian for the Museum of Modern Art in New York City is still selling after five years.

4. *Keep overhead as low as possible.* Another survival trick is cutting expenses. After working for several years out of her tiny Greenwich Village apartment, Skelton was lucky enough to find a work-for-space situation—she does graphic design work in exchange for rent. "It was a major breakthrough when I got this studio from Alan Spigelman, the owner of WOW," says Skelton.

Conveniently located on 25th Street off Sixth Avenue near the flower, fur and garment districts, the ample space allows Skelton to set up four distinct work stations, including a drawing board and light box, and still have room for a photocopy machine. And there is enough floor space left over so that Skelton can spread out on the carpeted floor, which is where she likes to "play" with her designs or paint.

"Part of living on spec is doing everything yourself," notes Skelton, "including taking out the garbage and typing your own proposals."

5. *Do your own publicity and marketing.* Another vital component in Skelton's do-it-yourself plan involves publicity and marketing. After doing a selected mailing to the media announcing her new wallpaper and fabric collection, she was featured in the Nov. 23, 1989, "Home" section of *The New York Times.* She also spoke on a recent AIGA panel in New York City entitled "Breaking Out: Beyond Graphic Design."

Searching for new ways to merchandise her concepts is a constant feature of Skelton's daily routine. She estimates she spends about 40 percent of her time on marketing. But the time invested is finally paying off. In fact, she came to the attention of the major retailer who plans to manufacture and market a line of products based on her "Classmates" designs because of a mailing she sent them: a cover letter introducing herself and a sleeve with 20 35mm color slides.

Between Royalty Checks In order to support herself between royalty checks, Skelton continues to work as a graphic designer. She designed the Kwilt puzzles above for the Museum of Modern Art in New York City. The plate and napkin designs were created for C.R. Gibson. The folding poster at far left, done for architect/industrial designer Emilio Ambasz and featuring Colorcore Formica, has won several awards.

5 After making a color sketch on acetate (left), Skelton tapes another sheet of acetate that has been printed from the black-and-white mechanical to her lightbox and covers it with a sheet of 1-ply Strathmore kid finish paper. Assembling her gouache paints (Winsor & Newton), Skelton paints in the color mechanical for the border (right).

6 Shown with other fabric and wallpaper patterns in Skelton's collection, the hand screen-printed "Ruler Border" makes a strong graphic statement, especially against the composition book design wallpaper and fabric design. Note also the notebook pattern (far right), another of the designs in the collection. This photo, by Steve Cohen, is included in the catalog and was art directed by Skelton.

7 To ensure that her line has a wide range of patterns, Skelton decides to use the animals and numbers again in a smaller version of a fabric pattern she calls "Animal Stamps." Repeating the process she followed above to create a black-and-white mechanical, she then indicates her color choices with Prismacolor pencils on a vellum overlay.

used were quite beautiful—Karen has a very good sense of color—so I never asked her to change anything," he says.

With the color palette well determined, Skelton mixes gouache paints and lays a fresh sheet of the 1-ply Strathmore paper over her outline. "This is the most fun," she says with an exuberant laugh. "Everything you have to do to get up to this point is very difficult. It's an especially long process to make the colors balance. But sitting down to do the actual painting, that's the fun part. It's like dessert." (See Figure 11.)

Known as "Teacher's Pets," the border comes in four color variations. Again, Skelton produces croquis for each color scheme, which are color-coordinated with other patterns in the collection. (See Figure 12.) Note that while Taback's drawing was just an outline, Skelton has totally eliminated the outline in her rendition.

"It was interesting for me to see another version of my work," says Taback about the final border. (See Figure 13.) "It's good material for a graphic designer to work with. Being a designer myself, I have always felt I design my drawings rather than draw them. I approach a drawing the way a designer approaches a design. It was fun to see how my work evolved, thanks to Karen."

Skelton, in turn, is thrilled she was able to work with Simms' characters; in fact, she had to be careful not to let them take over. "I learned a lot from working with Simms' drawings," she says. "It was like going to school—studying the way he chooses his line and his colors." Now, she adds, she is beginning to draw herself, and enjoys it immensely.

MAKING A REPEAT PATTERN

Just as Skelton is about to begin work on a plaid wallpaper/fabric design, Schumacher suddenly has second thoughts. What if Schumacher is libel for a copyright infringement since the concept is based on the Scotch-brand transparent tape plaid? So Schumacher checks with 3M, which manufacturers the tape, and is given permission to use the graphic. Relates Skelton with a laugh, "You know what 3M told Schumacher? 'Why not? We Scotchguard all your fabrics!'" Skelton fantasizes that the company will paper its offices with her creations.

Laying out the plaid is like designing a grid; it must be plotted very carefully. Because the pattern will be printed over and over again, in what is called a "repeat," its dimensions are determined by the

width and the circumference of the roller on which the fabric is printed.

Sketching first in pencil on a sheet of 1-ply Strathmore, with a tracing paper overlay, Skelton outlines the basic structure. Horizontally, it must be 6¾-inches, which is one-fourth the size of a 27-inch width of a roll of wallpaper and one-eighth the size of the 54-inch roll of fabric. Vertically, the drawing has to be $6^{5}/_{16}$-inches, which is one-fourth times the size of the circumference of the roller (25¼-inches). "I wanted the plaid to be square, but it couldn't be," says Skelton. "But with less than ½-inch difference, it looks square."

Then, using a triangle and a ruler on her drawing board, Skelton plots and pencils in the complete pattern. (See Figure 14.) She then turns over her sketch to another artist, who creates a precise mechanical drawing. Later, she has film positives made for each color. She completes this aspect of the job by again doing croquis to indicate the six different colorways.

In all, the designers created 25 pieces of final art and more than 100 croquis for this collection. Total design time involved was more than six months.

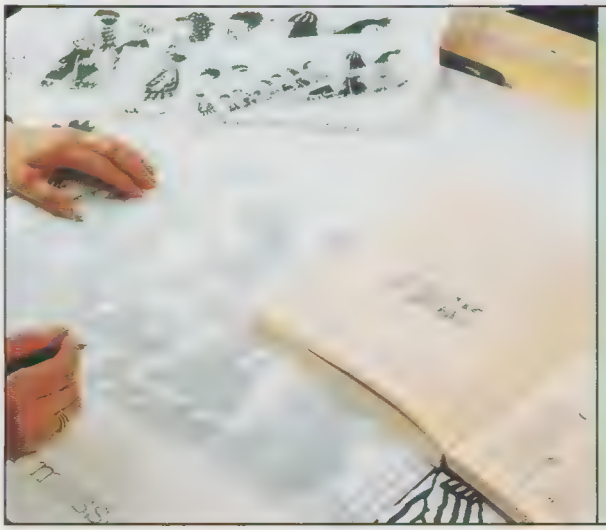
PROOFING/MANUFACTURING

Once Schumacher has all of the designers' mechanicals and croquis, it sends the art to the screen engravers, who make the film for each design. The film is then sent to a screen printer, who produces strike offs (color proofs) of each design. At this point the designers are called in to approve and/or change the colors on the strike offs. According to Skelton, most of the designs need some color alteration. "You may find that a red is not working and you have to change it to green or you may have to tone down or bring up other colors. You can say 'make the color dirtier, cleaner, yellower'—they have a whole language regarding color. It becomes a dialogue between us, Schumacher and the mill."

Once all color adjustments are made, the 54-inch fabrics and the 27-inch wallpapers are rotary screen printed. (A rotary press has two cylinders, one of which rotates the paper while the other prints on it. This press is normally used with continuous rolls of paper or fabric.) Schumacher uses a number of screen printers from around the United States and in other countries. The patterns for the wallpaper and fabric are identical, even though the fabric is twice as wide as the wallpaper. The fabrics are made of 100 percent cotton; the pretrimmed wallpaper is vinyl coated and

8 Schumacher requests small samples of the various color combinations in which this pattern will be available. Called croquis, these samples are actually acetate photocopies, stats or hand-painted images of the design against a solid background painted with gouache. Here are six of the 12 variations Skelton prepared of "Animal Stamps."

9 The Animal Ruler design is available in the three different versions shown at top, as is the 54-inch Animal Stamps fabric design (bottom). A variation of the Animal Stamps design is also available in wallpaper (shown in book). These samples are mounted in books, which are then distributed throughout Schumacher's extensive network.



10 Skelton selects a Simms Taback drawing from a Scholastic teaching guide and enlarges it on her photocopier. Working on a sheet of vellum taped over the photocopy, she outlines the figures with a black Pilot razorpoint pen, carefully modifying and refining them and the layout in the process. Note that she adds animals to enhance the composition.

11 Before painting the color mechanical, Skelton devotes a lot of time to testing color combinations for balance and interest. After checking with Taback, who finds her choices "beautiful," she paints the final mechanical with gouache on a fresh sheet of 1-ply Strathmore paper taped over her outline.

12 For the "Teacher's Pets" border, Skelton makes croquis for each color scheme. These variations, known as colorways, are designed to be color-coordinated with other patterns, shown at right. In a colorway, each color and its position will be changed in manufacturing. For example, here all the reds turn to turquoise, all the blacks to brown.

13 The final "Teacher's Pets" border is shown here with the animal stamps fabric and a linear wallpaper design available in several colors. Commenting on the final border, Taback says, "It's interesting for me to see another version of my work." The photo by Steve Cohen is also included in the catalog and was art directed by Skelton.

washable. The borders are hand screenprinted, a more labor-intensive process, which yields a cleaner, brighter look. In the entire collection, 125 different variations, or what are called SKUs (stock keeping units), are available.

FINISHING TOUCHES

All this time, Skelton has continued to make the rounds of bedding manufacturers and retailers, trying to sign another licensing agreement. While Penney's, Martex and Wamsutta showed considerable interest at one time, they eventually declined to pursue the idea.

In order to create additional marketing possibilities, Skelton decided to work up rug patterns based on two Simms Taback book covers. Working with an enlarged photocopy of the book jacket for "On Our Way to the Forest" (Harper & Row), Skelton revamps the layout. In addition to adding an owl in the sky and apples in the foreground, she shifts other elements to suit the 6 x 9-foot dimensions of the rug. Then she places a sheet of vellum over the final layout and traces its outline with her technical pen. (See Figure 15.)

Here Skelton changes Taback's colors to reflect her palette. "Karen put in colors that wouldn't ordinarily be my choices," says Taback. "But to make the colors completely decorative, they had to go through a transformation." Taback again approves the scheme Skelton shows him, and soon she is applying gouache to the mechanical. (See Figure 16.) Again she tapes her layout to her lightbox and works on an overlay of 1-ply Strathmore paper. Skelton eventually sold this concept and one other to Schumacher's floor covering division, which is in the process of manufacturing the rugs.

WALLPAPER AND FABRIC BOOKS Elaborate sample books of the fabrics, wallpaper and borders must be produced and distributed throughout Schumacher's extensive network. The designers negotiated a separate fee for the design of these books. From a design standpoint, this involves more than just designing the cover. In addition, endpaper and divider pages had to be designed, fabrics had to be photographed on location and a sequence had to be determined for where the wallpaper and fabric designs would appear in the books. Skelton hired photographer Steve Cohen to shoot the fabrics and wallpapers on location, then the designers created the layout and covers for the books. On the covers, Skelton featured two of Taback's

kids framed by a large Avery label. The background is the familiar black-and-white notebook pattern. The only change Schumacher made in the printed version is that the background is now green and black. (See Figure 17.) "They wanted to make it look richer," notes Skelton.

The wallpaper book contains 89 pages, which include the wallpaper inserts and location photos; the fabric book contains 33 inserts, including two photographs.

The collection was introduced in the summer of 1989. "The line has been out long enough now so that we know it's going to do well," comments Quilter. "Because it's beautifully colored, beautifully designed, different and more sophisticated than the average juvenile collection, it's being received accordingly."

EXPANDING THE COLLECTION Skelton is pleased, too. She relates why she is glad to have had the opportunity to work with Schumacher: "Their expensive printing and high-quality goods mean a beautiful quality product. For the first time out, it's the best portfolio piece one could ask for. They have a great distribution network. And they leave you alone to design the collection, which is why they hired you in the first place."

She can only find a couple of minuses. Because her collection is positioned at the high end of Schumacher's business, which has equally high prices, that means a smaller market. "It's also a less visible market for someone who's looking for attention," she comments.

But Skelton is going to get plenty of attention because her marketing efforts are paying off. A major retailer has just agreed to produce and distribute, beginning in the fall of 1991, a line of linens, four more fabric patterns and a host of paper products, which could include plates, tablecloths, party sets, notebooks, stationery—all based on the Classmates concept. Maybe even a poster, which, Skelton notes, brings her back to graphic design.

Would she ever go back to full-time employment situation? "Only if someone like Conran's or Wamsutta asked me to head their children's product design department," says Skelton, her face breaking into a big smile. ■

Susan E. Davis, a freelance writer who specializes in the graphic arts, edited "59 More Studio Secrets for the Graphic Artist" (North Light Books, 1989). She has begun writing her second novel.

14 To create a layout for the plaid pattern, which is referred to as a "repeat," Skelton determines the 6¾ x 6$^{5}/_{16}$-inch dimensions based on the width and the circumference of the roller on which the materials will be printed. Using a basic grid on vellum, Skelton pencils in the pattern.

15 To create a design for a rug, Skelton adapts another Taback illustration, this time a book cover. Working with an enlarged photocopy of the drawing, she redesigns the layout to fit the 6 x 9-foot rug and adds new elements—an owl and some apples. Then she traces an outline of the revised layout on a vellum overlay with a technical pen.

16 After working out a color scheme that fits into the "Classmates" color palette, Skelton paints the color mechanical with gouache on 1-ply Strathmore paper, which she has taped over her layout on a lightbox. Taback, as usual, has final approval of his reinterpreted drawing.

17 Skelton completes her collection, now called "Classmates," by designing the cover for the wallpaper book. The only change Schumacher makes in the final version, right, is to print the background green and black. "They wanted to make it look richer," notes Skelton.

production

Specifying & Printing Recycled Paper

Learn what recycled paper is, how to specify it and how its quality, cost and availability compare to virgin stock.

By Michael Mangan

You have heard all the myths: Recycled paper falls apart on press; registration is so difficult you are as likely to get a mass of dots as you are a clean four-color image; and even if you can get a quality paper, it is expensive and you have to put up with lint and hickeys. And the misconceptions don't stop here.

In reality, most designers and printers who are pioneering the use of recycled paper report fewer problems than expected. In fact, a study in early 1990 by *Paper Sales*, a now-defunct newsletter, found that 77 percent of the commercial printers who responded to a recent survey said the performance of recycled papers was at least equal to virgin stock, according to Editor Lisbeth Boutang. The survey also indicated that 55 percent of those printers revealed they are handling more recycled paper orders than five years ago. Yet recycled paper still represented only one to five percent of all orders.

As with any new development in graphics, "Interest is high and the knowledge minimal," says Michael Scdoris, a sales representative for Graphic Arts Center, which has recently used recycled paper to print catalogs for Patagonia and Esprit. Scdoris says that while the initial search for the right kinds of paper for these catalogs was difficult, he feels printing on recycled paper is actually no different than printing on any other type of stock. "Although on the recycled paper we have printed on, we had to adjust the separations for dot gains and clean up highlights and unwanted color."

Both Barbara Middleton, Esprit's adver-

tising manager, and Peggy Bernard, Patagonia's production manager for catalogs, report successful results for those catalogs. Middleton says her company first used recycled paper for its Spring 1990 catalog and was so pleased with the results it redesigned its Fall 1990 catalog and printed it on yet another recycled stock. It has also turned to recycled stock for all of its in-house uses. (Watch for a story on how Esprit designed and printed this catalog in the next issue of *Step-By-Step*.)

While generally pleased with the Patagonia catalog (more than one million were printed), Bernard says that compromises had to be made in the quality of the color. "Printing our catalog on recycled was one of the biggest steps we have taken because our clothing is known for its bright, unique colors," she says. "We knew that when we went to recycled, we would sacrifice color, but the bigger issues were more important to the owners of the company." Despite the compromise, the company is committed to the use of recycled paper, which it also uses on its hangtags, stationery and even in its copiers.

Ron Shook, head of Graphic Art Center's color department, which created the separations for the Patagonia catalog, says good prepress work is essential to achieving successful results with recycled paper. "Anytime you have unusual stock, you have to adjust your separations. When we print on plastic, for example, we have to make some drastic changes. But basically, you are doing the same things as if you were printing on newsprint, but it is just not as severe. Actually the recycled stocks

Design Applications for Recycled Paper
Designers are using recycled paper for a variety of applications. Jennifer Morla found a French Paper Co. recycled sheet (Speckletone Madero Beach Text) perfect for wine labels (left). *Garbage* magazine, an enviromental publication (center), has been printed on Cross Pointe Troy Book since it began publishing. Clothing manufacturer Patagonia prints its million-plus catalogs on Cross Pointe Halopaque.

"A hunger for trees..."
Guarantee
We Guarantee Everything We Make.
Should you have a problem with a Patagonia item, return it to the store you bought it from or to Patagonia for a replacement, repair or refund.
We want you to be completely satisfied with your Patagonia clothes for as long as you use them. If you have any questions before buying, call our Guide Line 1-800-523-9597

are good printing surfaces."

Of course, there are also a few adjustments that have to be made on press, says Steve Williamson, who heads up Graphic Arts Center's printing department. Sometimes the tack of the inks must be changed if the press is picking up fiber; press tensions have to be watched; blacks must run heavier in order to get the best coverage for type; and minor shifts in color are difficult to make on press because of the high densities of ink that must be run.

WHAT IS RECYCLED PAPER?

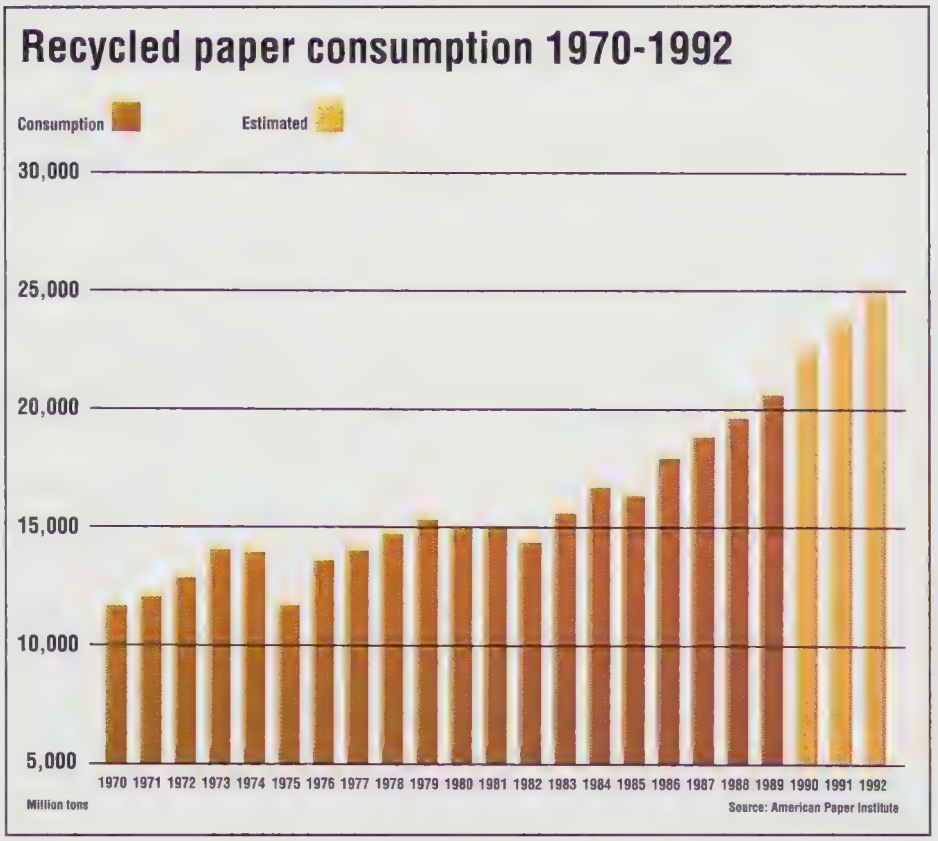
This question even perplexes experts in the field. Actually, few recycled paper grades are made strictly from wastepaper; almost all have some virgin content (although there are some exceptions). Recycled paper may be manufactured from various percentages of this virgin paper and two types of wastepaper, often called pre-consumer and post-consumer waste.

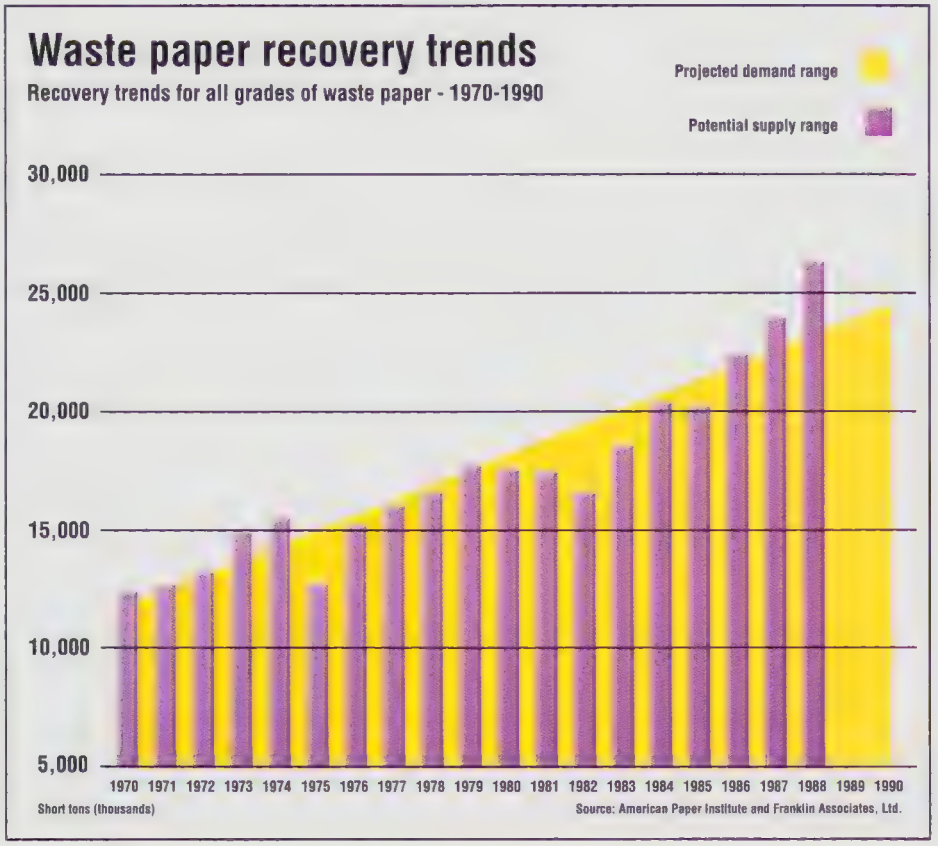
Paper waste generated during the manufacturing process is called pre-consumer (or post commercial) waste. It is paper that never reaches the consumer—materials such as envelope clippings, bindery trimmings, ends of rolls, mill wrappers, obsolete inventories and rejected stock. Nearly all (95 percent) pre-consumer wastepaper is recycled, and has been for a number of years.

Post-consumer waste is paper that has served its intended purpose and has been discarded by the end user. Used office paper, computer paper, newspaper, paper cups, cardboard and envelopes are just a few examples of post-consumer wastepaper. At present, considerably less post-consumer waste is recycled (40 percent) because the systems needed to separate, collect and transport post-consumer waste to recycling mills are not well developed, according to *Waste Age's Recycling Times*, a Washington, D.C.-based newspaper which covers recycling markets.

To meet minimum content standards set up by the United States Environmental Protection Agency (EPA), fine printing and writing papers (coated and uncoated offset, copy paper, bond paper, envelopes and so on) must contain at least 50 percent wastepaper. (Currently, this is the major function of pre-consumer waste, but higher percentages of post-consumer waste are expected as the collection systems locate sources of post-consumer waste.)

THE POST-CONSUMER CONTROVERSY A note of caution about recycled paper definitions is appropriate here. In many states




Waste paper recovery trends
Recovery trends for all grades of waste paper - 1970-1990
Projected demand range
Potential supply range
30,000
25,000
20,000
15,000
10,000
5,000
1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990
Short tons (thousands)
Source: American Paper Institute and Franklin Associates, Ltd.

within the U.S. and in Canada, there are conflicting definitions of just what constitutes recycled paper. (At this time, there are no federal regulations regarding recycled papers, only guidelines which the EPA established in 1988, in order to guide government agencies in their paper purchases. Most producers are working with these guidelines in creating and manufacturing recycled products.) There is a minimum wastepaper content of 50 percent in all of these definitions, but the amount of post-consumer waste specified within those definitions varies.

While EPA sets a standard of 50 percent wastepaper, it provides only a broad definition of just what constitutes wastepaper. Because of this liberal interpretation, some states have narrowed the EPA definition. For example, in New York, envelope trimmings or other unprinted pulp substitutes are not considered "wastepaper," according to Susan Kinsella of Conservatree Paper Company, a recycled paper merchant. While California maintains a 50 percent wastepaper content, 10 percent of that must be post-consumer. Canada requires a five percent post-consumer content. These are among the strictest recycling definitions written in North America today.

QUALITY ISSUES

Once the content of recycled paper is established, quality is certainly the next concern, especially for designers. Brightness, opacity and printability are probably the design industry's biggest concerns when comparing recycled to virgin papers.

BRIGHTNESS In the world before recycling, brightness was a major quality issue. Times have changed, however, and brightness is quickly losing importance as consumers ask what the brightening chemicals are doing to the environment and if they are vital to the papermaking process. Titanium dioxide is an example of a paper brightening chemical that is very expensive and is gradually being eliminated from the papermaking process.

If brightness is an absolute must for your design project, however, do not set your hopes on finding many recycled papers that can satisfy your need. An extremely bright recycled sheet may exist, but it will probably cost more than a virgin sheet. Until these technical problems are resolved, the key is to design for the kinds of papers that are available.

OPACITY Opacity in recycled paper is equal

RETHINKING AN OLD PROBLEM

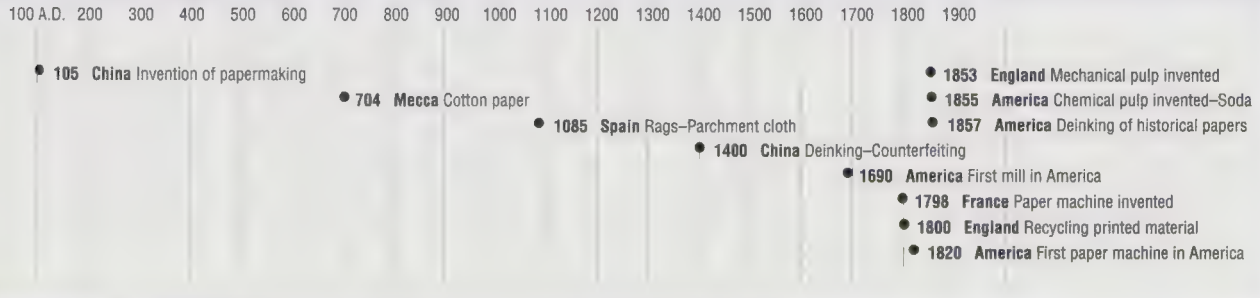
According to the Printing Industry of America (PIA) in Arlington, Va., commercial printing is a $75 billion dollar industry—with 40,000 printing firms in the U.S. consuming millions of tons of paper a year. It is not surprising, then, that designers and their clients who spec paper have a tremendous role to play in improving the environment if they understand when and how to use recycled papers.

Recycling is certainly not new. Before discovering that wood fiber made suitable paper, inventive manufacturers made paper with cotton, corn and other materials. Paper made of wood pulp is actually a recent discovery in the evolution of writing materials. (See accompanying chart.) At one time, in fact, cotton for writing papers was in such short supply that mummies were sold for their cotton wrappings, which were then recycled into paper. It is also a little known fact that many of the documents and books chronicling the early history of the United States no longer exist because in the mid-19th century, paper was in such short supply that the U.S. government was forced to turn over all but essential historical documents so that old paper could be recycled into new.

Today's problem is one of consumer waste. Paper and paper products now comprise more than 40 percent of the garbage we throw away each day. Currently less than one-third of that paper is recycled into new paper.

While recycling makes sense environmentally, there are also economic advantages. A recent public television program titled, "Operation Earth," estimated that, if recycled, the value of the garbage landfilled for one Midwestern state (population four million) would be worth $100 million.

Certainly designers and others in the graphic arts profession are beginning to address this issue. Recently, the American Paper Institute set a paper recovery goal of 40 percent for the U.S. by 1995. Presently the U.S. recycles 26 percent of the paper it produces. Although European countries like Denmark, the Netherlands and U.K. recycle more paper (73, 68 and 55 percent respectively), other timber-rich European countries such as Sweden (10 percent), Norway (six percent) and Finland (four percent) recycle less. But as environmental concerns increase, recycling technology is perfected and new ideas for wastepaper collections become commonplace, most paper products will contain recycled fibers.


100 A.D. 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900
105 China Invention of papermaking
704 Mecca Cotton paper
1085 Spain Rags–Parchment cloth
1400 China Deinking–Counterfeiting
1690 America First mill in America
1798 France Paper machine invented
1800 England Recycling printed material
1820 America First paper machine in America
1853 England Mechanical pulp invented
1855 America Chemical pulp invented–Soda
1857 America Deinking of historical papers

Courtesy of Jobe Morrison, Cross Pointe Paper

THE RECYCLING PROCESS

The first and perhaps most important stage of the recycling process begins not in the mill, but with paper brokers who collect and sort wastepaper from printers, envelope converters, office buildings and other similar sources. Paper collection can be complicated work because wastepaper has over 600 grades classified under these categories: groundwood (newsprint and cardboard)/ groundwood-free; coated/uncoated; white/colored; and printed/unprinted.

Paper mills can accept only certain grades of waste in order to produce fairly uniform stock, according to Bill Brugger, of Kard Recycling. Contaminants lower the quality of the paper. "Wastepaper with sticky address labels, non-water-soluble glue bindings and plastic envelope windows are considered paper contaminants and not recyclable," he notes.

Jeff Dyer of Ponderosa Pulp, a recycling mill, adds that paper with specialty print processes like UV coatings and foil stamping, which many designers favor, cannot be recycled. "The UV coatings are impossible to remove from the paper," states Dyer. Also difficult to recycle is paper printed with laser ink or copy machine toner. Since the ink is difficult to remove, the pulp made from this waste is often used in products such as hand towels.

DEINKING

The second stage of the recycling process is converting this waste into a usable form. When a mill receives a load of wastepaper, one of two things happens: If there is no ink on the wastepaper, it is combined with virgin paper in the pulper (a huge mixing tank). If the wastepaper has been printed, it must be cleaned by a process called deinking. (Only three fine paper mills in the U.S. have deinking facilities; other mills that combine deinked pulp with virgin con-

Deinking In the deinking process, paper is first turned into a pulp, then screened (top left), where extraneous material is extracted. The pulp is bleached and washed twice (top right and lower left). The first stage displaces large particles, the second smaller particles. The pulp is then run through a series of mini-cyclone tubes (lower right) that spin remaining particles into the center where they drop to the bottom of the tube.

Photos courtesy of Jobe Morrison, Cross Pointe Paper

tent must buy the pulp.)

Like a washing machine cleaning clothes, the deinking process cleans "dirty" (meaning printed and colored) paper. First, the wastepaper is dumped into a pulping tank and "cooked" in water, caustic and ink dispersant. As the wastepaper is mixed and heated, ink and some dirt rise to the top of the mixture, while heavy objects like metal staples or paper clips sink to the bottom of the tank.

BLEACHING

After the paper has cooked (approximately one hour at 120 degrees) into a gray pulp that looks like a thick, chunky soup, the mash is screened and more ink and dirt drop out. This pulp is then sent through a large tank that contains a bleach additive which will make the paper whiter. (More environmentally conscious people are asking for unbleached papers because of the effect bleach has on the environment. In addition, more paper mills are learning about bleach substitutes or less harmful bleaching methods such as the oxygenated bleaching systems used in some mills.)

WASHING

After bleaching, the pulp is passed through two washing stages, one that separates small ink and dirt specks, and another that removes the large specks. This is done by blowing air into the pulp and washing solution. The bubbles that result float the ink residue to the top, where it is skimmed off.

In the final cleaning step, the pulp is run through a series of mini-cyclone tubes that spin the remaining dirt particles into the center where they drop to the bottom of the tube. The flow is then reversed so the remaining dirt can drop out. At the last stage, the pulp is then given a final wash, thickened and is ready to be combined with virgin pulp.

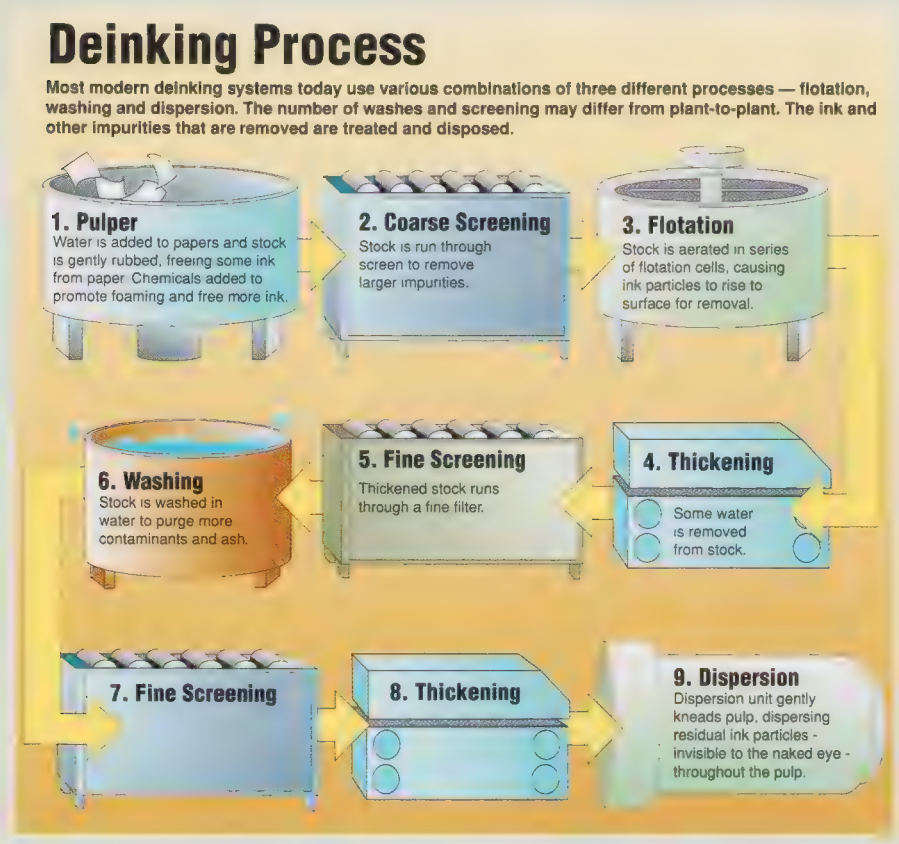

Deinking Process
Most modern deinking systems today use various combinations of three different processes — flotation, washing and dispersion. The number of washes and screening may differ from plant-to-plant. The ink and other impurities that are removed are treated and disposed.
1. Pulper
Water is added to papers and stock is gently rubbed, freeing some ink from paper. Chemicals added to promote foaming and free more ink.
2. Coarse Screening
Stock is run through screen to remove larger impurities.
3. Flotation
Stock is aerated in series of flotation cells, causing ink particles to rise to surface for removal.
4. Thickening
Some water is removed from stock.
5. Fine Screening
Thickened stock runs through a fine filter.
6. Washing
Stock is washed in water to purge more contaminants and ash.
7. Fine Screening
8. Thickening
9. Dispersion
Dispersion unit gently kneads pulp, dispersing residual ink particles - invisible to the naked eye - throughout the pulp.

Illustration by Bill Baker, from "The Wire," March 1990, courtesy of Champion Paper.

to or perhaps even better in some cases than virgin paper because of the flatter fibers that are created during the recycling process. Also, mills are experimenting with fillers, like calcium carbonate, which make paper acid-free and at the same time enhance opacity.

PRINTABILITY The most important factor in printing recycled paper may not be the paper at all, as designers and production managers who work with recycled paper are discovering. As stated earlier, separations seem to be the key to quality results. As long as the separator knows the kind of paper you are using, adjustments can be made on the film.

Jack Jensen of American Printing, a firm which has been printing on uncoated recycled paper for more than a year, adds these observations about printing with recycled paper:

- Design jobs around recycled paper, but be aware of possible imperfections. With some uncoated stocks, for example, there can be a loss of print quality, compared to virgin coated stock.
- Slight press chemistry adjustment might be needed but the speeds at which presses are run are about the same as they are with virgin stock.
- A recycled stock's shorter grain could cause some instability and possibly greater paper stretch.
- Slight color variances in some paper stock can affect the color of inks.

Jensen also notes that recycled paper has several advantages that may outweigh any disadvantages:

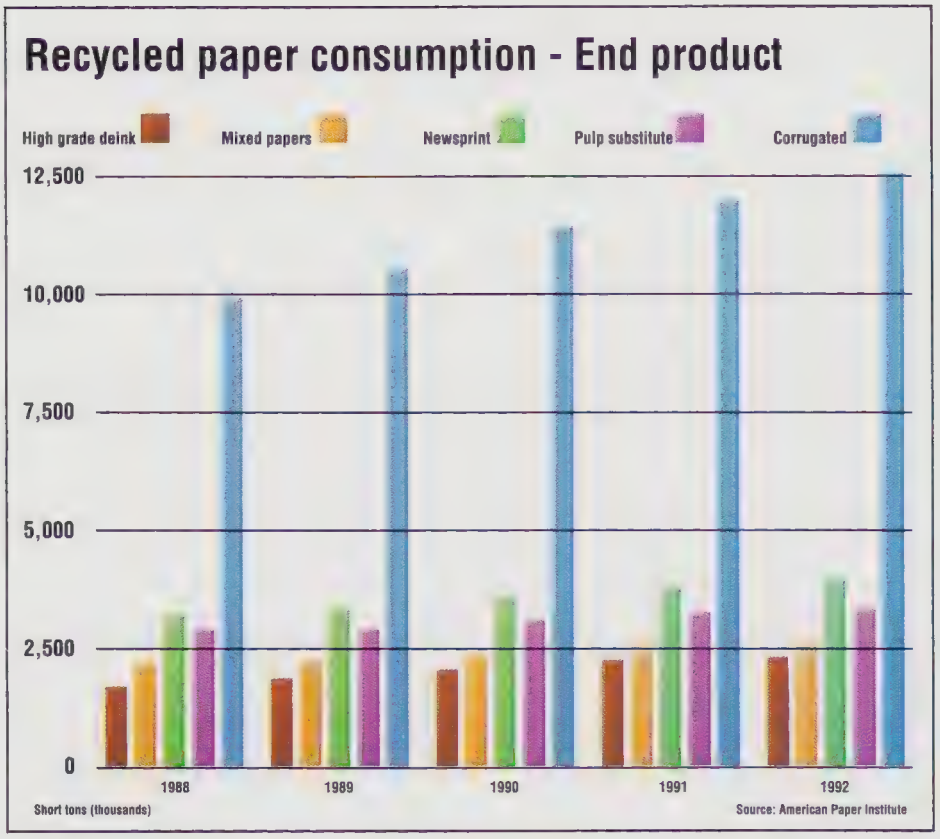
- Folding, scoring and embossing are easily accomplished with recycled paper because of its shorter fibers.
- There is a great public relations value in using recycled paper because each ton produced saves approximately 17 trees, reduces landfills by three cubic yards, requires approximately 4,102 kilowatt-hours less energy than virgin paper, reduces air pollution emissions by 60 pounds per ton of paper produced and requires 7,000 less gallons of water per ton compared to non-recycled paper. (Data from Earth Care Paper.)

PRICE CONSIDERATIONS

Comparing prices of recycled to virgin paper is difficult because there are so many variables involved, like the quantity ordered, shipping arrangements and so on. However, one general observation can be made: As competition heats up, recycled paper prices are expected to continue to drop slowly.

In 1989, recycled paper prices (both sheetfed and web) were approximately 10 to 12 percent higher than virgin grades, but that has narrowed. In general, uncoated recycled offsets and some text grades are comparably priced or can even be priced below some virgin offsets and text grades. Prices for recycled coated enamels are higher because competition in that grade line is weak. Although several mills have introduced recycled coated enamels, it is a more difficult paper to manufacture than an uncoated or lightly coated stock. Recycled colored offsets are very competitive as compared to colored virgin offsets. Recycled paper prices for copiers and computers are quickly closing the widest gap as major paper mills begin to introduce post-consumer content into these grades. And the day is near when all copy and computer paper will be made from some recycled fiber.

Once paper buyers become familiar with suppliers, mills and recycled paper grades, and more mills introduce recycled fibers into previously virgin grades, prices for recycled grades will closely match and in some cases could be lower than remaining virgin grades.



AVAILABILITY

Currently, there are a number of merchants handling some 75 grades of recycled paper, produced by more than 30 U.S. paper mills. Grade weights range from 16 lb. onion skin to a 200 lb. board stock. These include uncoated offset, coated offset, matte, text and cover, bond, book, return postcard and envelope stock.

To help you determine availability of recycled paper in your area, here are a few suggestions:

1. *Start a file on recycling.* Begin by asking the paper merchants in your area for information about the recycled paper they sell.
2. *Make a gradual transition to recycled paper.* This will avoid any unexpected and potentially costly surprises. It will allow time for your merchant, printer and color separator to prepare for any technical adjustments that may be needed.
3. *Order paper early.* Because the recycled paper industry is still very young, mills, merchants and printers are learning (by trial and error) about recycled paper. Until errors can be worked through, do not expect the same delivery results as a project done on virgin paper. That does not mean recycled paper will always arrive late, but for safety, build in extra time for the first few projects until there is a good track record of availability.
4. *Keep alternate papers in mind.* Sources for recycled paper can dry up because of a mill breakdown, a wastepaper source problem or sudden demand for quality grades that get "discovered." So as a rule of thumb, always have an alternate paper choice in mind.

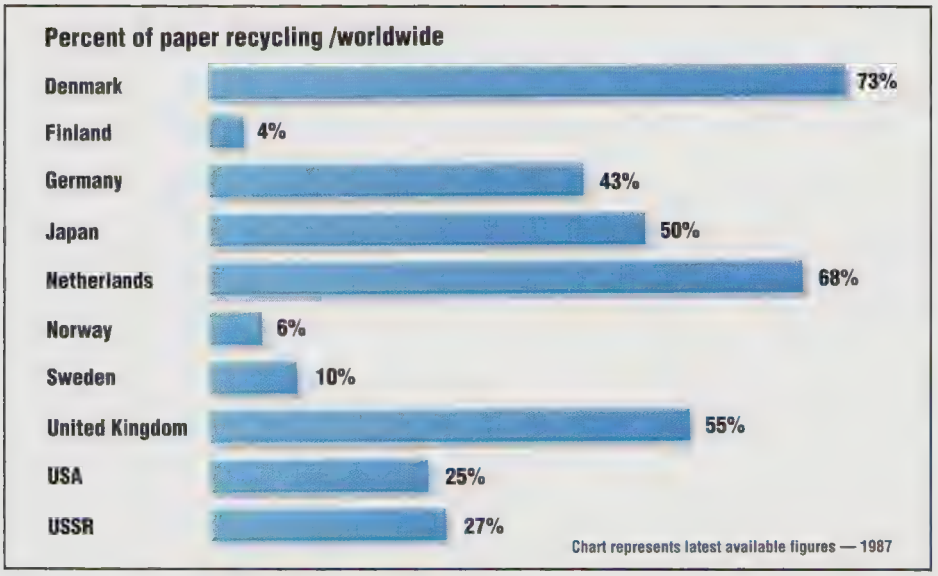
As demand for recycled paper grows, mills will need time to locate greater sources of wastepaper, and merchants will need time to decide what grades of stock to carry. If a job calls for a large amount of paper (40,000 lbs. or more), have your printer contact the mill directly and work out production and delivery details.

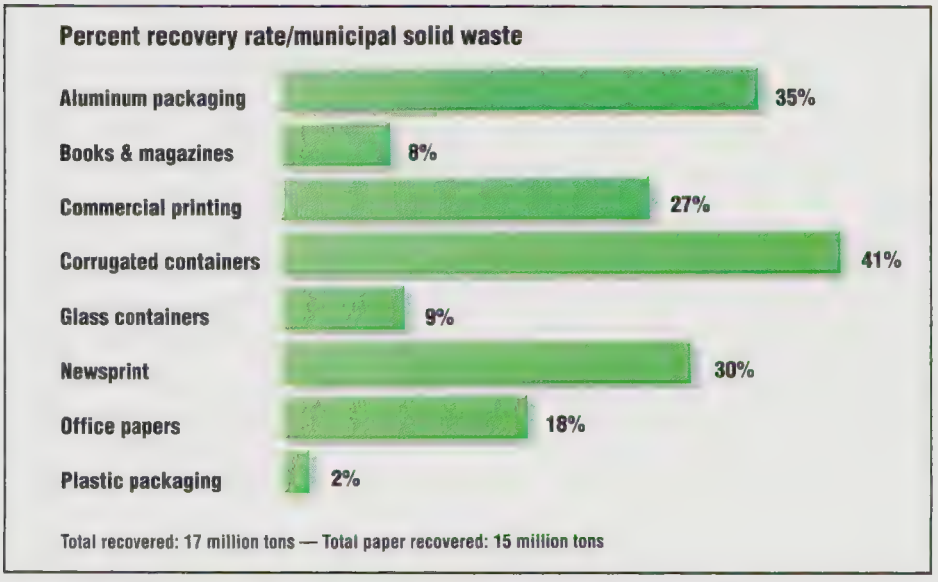
DESIGN APPLICATIONS

Catalogs lend themselves well to the most available grades of recycled paper, yet many designers have become interested in using recycled paper for a much wider variety of applications. San Francisco designer Jennifer Morla together with Judi Radice recently designed a restaurant menu that contained several weights and grades of recycled paper. By foil stamping its outer edges, the designers were able to give the menu a slightly longer life, a major consideration for restaurant owners. Morla has also used recycled paper for wine labels, packaging and brochures.

Hamburger giant McDonalds has even begun specifying recycled paper for a number of large-scale printing projects, including its 1989 annual report, printed by DesPlaines, Ill.-based Bradley Printing. John Schneider, Bradley's production coordinator, reports that after some trial and error, and adjustments to color separations, their results were successful. Schneider also notes that to get the proper brightness of color on the cover, instead of pushing the color, they adjusted the film to make the midtone and highlights lighter and the shadows blacker.

Even consumer publications are using recycled paper effectively. *Mother Jones* used recycled paper to print the cover of a recent issue. Several other notable examples are *E* and *Garbage* magazines, which both focus on environmental issues. *Garbage*, a Brooklyn-based bimonthly which has been printed on a recycled sheet since the magazine was introduced in September of 1989, discovered the key to getting quality results on recycled





stocks was in the separation and proofing stages. (See opening illustrations.)

Media Graphics, the Chicopee, Mass.-based color house, who creates the separations for *Garbage*, began a dialogue with South Burlington, Vt.-based Lane Press, which prints the magazine, and together they are producing excellent results. Ed Patingre, vice president of Media Graphics, says his firm discovered that generic separations will not work with recycled paper since dot gains approach 40 percent. To compensate, technicians not only reduce the size of the dot on the film, they also reprogram the scanner's (Hell 399) gradations and color board.

The firm also feels one of the keys to its success has been its proofing system, which helps match the dot gain anticipated on press. Media Graphics switched from Matchprint (3M) to the Pressmatch (ENCO) proofing system because it allows them to laminate the proof to the recycled stock, and therefore accurately show clients what can be expected on press. "We are coming as close with these proofs to Lane's printing as anybody is with another proofing system. This was the key for us," adds Patingre.

INFORMATION AND COOPERATION

As interest in environmental issues escalates, more information becomes available through professional organizations. The Printing Industry of America, American Paper Institute and the American Institute of Graphic Arts have all begun research on recycling, each focusing on their respective industries.

AIGA, in fact, is in the midst of research for an upcoming publication titled, "Recycled Paper for Printing, a Guide for Designers and Their Clients," scheduled to be mailed to all members in Spring 1991. The publication will focus on all aspects of recycling and how it affects the designer. It will also list all recycled paper grades and mills, according to Claudia Thompson, a Boston area graphic designer who is heading up the project. "There's a huge amount of interest nationally," says Thompson. "Since I began working on my project, I've gotten calls from all over the country from people looking for a comprehensive guide to recycled paper. Designers are ready to look more critically at themselves in terms of what they're specifying."

Thompson sees a general interest in the design community for making environmentally friendly design decisions and believes that this decade marks only the beginning of relationships that are being developed between paper manufacturers, ink producers, designers and other print-related fields that have not communicated well with each other in the past.

This AIGA recycling source book is the second major project the organization has undertaken on the subject. The first was a newsletter printed by the Association called *ECO*. Written by Eva Anderson and Vida Ogorelec, it explored the relationship between sound ecology and good design.

Cooperative ventures like these are taking place all over the globe today, as everyone begins to realize the gravity of the problem. Of course, at this time not all projects can be printed on recycled paper, but it is certain that these papers will play a major role in design in the near future.

Graphic designers who listen, learn and begin to feel comfortable specifying recycled papers have much to contribute. But this learning process can be accomplished only in a free exchange of information among all related graphic arts disciplines. ■

Michael Mangan is principal of an environment-friendly print and package consultant firm, Mangan and Associates.

See the "Manufacturers" sidebar on the following spread.

MANUFACTURERS RISE TO

Paper companies are responding to an increased demand for recycled paper by creating a variety of new products. The following represent paper mills and converters which manufacture printing and writing paper, computer paper and envelopes from wastepaper. The list was compiled by E.H. Pechan & Associates, Inc., 5537 Hempstead Way, Springfield, Va. 22151. This list is not comprehensive and may not reflect all mills and their recycled products since new products enter the market daily. For an updated list, call the EPA procurement guidelines hotline at (703) 941-4452. (*The product information has not been verified by the EPA or E.H. Pechan & Associates.*)

FINE PRINTING AND WRITING PAPERS

• Badger Paper Mills, Inc., 200 West Front St., P.O. Box 149, Peshtigo, WI 54157-0149; 800-826-0494; Contact: Steve Spangenberg. Badger has developed "Envirographic" xerographic paper and "SHAR-Print" computer paper, which meet a 50 percent wastepaper standard.

• Beckett Paper Co., 400 Dayton St., Hamilton, OH 45011; 513-863-5641; Contact: James E. Reid, VP, Marketing. "Concept" is a new acid-free writing, text, and cover line in several finishes, colors, sizes and basis weights. The watermarked bond is compatible with laser printers and photocopiers.

• Champion International Corp., One Champion Plaza, Stamford, CT 06921; 203-358-7886; Contact: Tony McDowell. Champion's Benefit, made of 50 percent recycled fibers including 10 percent post consumer waste, is an uncoated paper intended for cover, text and writing purposes. Available in vellum and linen finishes in 80 lb. cover, 70 lb. text and 24 lb. writing in a variety of colors.

• Cross Pointe Paper Corp., 1295 Bandana Blvd. North, St. Paul, MN 55108; 800-543-3297; Contact: Jim Grove. Book publishing grades, white and colored offset, film coated book and offset, cover stock, and new 25 percent cotton/50 percent wastepaper watermarked bond in white, ivory, and gray. All papers archival quality.

• Eastern Fine Paper, Inc., P.O. Box 129, Brewer, ME 04412; 800-341-1750; Contact: Tom Donelley. "Certificate Bond" is a 25 percent cotton fiber (recovered material), archival writing paper. Eastern can also make orders for offset, mimeo, writing, and high speed copier papers which meet a 50 percent wastepaper content standard.

• Fox River Paper Company, P.O. Box 2215, Appleton, WI 54913; 414-733-7341; Contact: Pattie Wier. Fox River's new writing bond, "100 Percent Recycled Bond" exceeds EPA standards for cotton fiber papers. This mill also manufacturers offset, cover stock, writing, and bond grades.

• French Paper Co., 100 French St., Box 398, Niles, MI 49120; 616-683-1100; Contact: Tad Kline. French manufacturers book (text) papers and cover stock, including "French Speckletone."

• George Whiting Paper Co., P.O. Box 28, Menasha, WI 54952; 414-722-3351. The company manufactures cover, text, and custom colors and weights by special order.

• Georgia-Pacific Corp., 133 Peachtree St., N.E., P.O. Box 105605, Atlanta, GA 30348-5605; 404-521-6265; Contact: Allen Tate. "Re-Comm" is available in uncoated and matte coated, and white and colored offset is available in rolls. "Re-Run" commodity paper is converted into computer printout, office forms and carbonless.

• Gilbert Paper, 430 Ahnaip St., P.O. Box 260, Menasha, WI 54952-0260; 414-722-7721; Contact: Mark Manske. Gilbert's Recycled is a 75 percent recycled grade with 15 percent post-consumer waste, 35 percent pre-consumer waste, 25 percent cotton and 25 percent virgin fiber. In 20 and 24 lb. weights, in white and natural with matching covers, it is recommended for stationery and similar applications.

• P.H. Glatfelter Co. (Bergstrom Division), 228 S. Main St., Spring Grove, PA 17362; 717-225-4711; Contact: Robert Boyer. Glatfelter's "Neenah Line" includes uncoated and film coated offset, writing and envelope papers, and book papers which meet minimum content standards. Many of their papers are also of archival quality.

• Hammermill Papers, 6400 Poplar Ave., Memphis, TN 38197-7000; 800-242-2148. "Savings WP 50 DP" is designed for use in high-speed xerographic copiers, laser printers, and small offset duplicators. "Savings Offset" is available in sheets or rolls in several weights and finishes.

• Hopper Paper Inc., 133 Peachtree St., N.E., Atlanta, GA 30348-5605; Contact: Ruthann Pennypacker. "Proterra" is a new, premium text, cover and writing line available in four finishes and 12 colors.

• Howard Paper Mills, 354 S. Edwin C. Moses Blvd., Box 982, Dayton, OH 45401-0982; 800-543-5010; Contact: Jim Sherman. Howard has introduced several text, cover, bond, and ledger grades which meet EPA minimum content standards.

• Neenah Paper, 1400 Holcomb Bridge Road, Roswell, GA 30076; (404) 587-8000. Neenah's new "Environment" line of writing (25 percent cotton), text and cover papers is 100 percent recycled, and is available in 24 to 80 lb. weights in text and cover, and 80 to 120 lb. in cover.

• Nekoosa Paper Inc., 100 Wisconsin River Dr., Port Edwards, WI 54469; 715-887-5714; Contact: Jerry Falk. Nekoosa's "Ardor Recycled Xero/Bond" can be used for a number of printing and copier uses.

• Papyrus Newton Falls Inc., P.O. Box 253, Newton Falls, NY 13666; 800-448-8900; 800-962-8993 (NY). Papyrus has introduced new coated text and cover grades: "St. Lawrence Recycled" (C1S and C2S) and "Stora Matte Recycled," (C2S Matte), available in white and in several basis weights.

• James River Corporation, 145 James Way, Southhampton, PA 18966; 800-441-9292; Contact: Customer Service. "Retreeve," "Riegel GC Cover," and "Riegel Jersey Cover," are new text and cover grades

This list was compiled by E.H. Pechan & Associates.

MEET CONSUMER DEMAND

available in several colors, finishes, and basis weights. Twenty-five percent cotton content grades include "Whitefield," "Pro-Tech" Computer Paper," "Curtis Linen Writing," "Curtis Flannel Writing," "Curtis Gradations," "Curtis Tuscan Antique," and "Curtis Tuscan Terra."

• Riverside Paper Co., 800 S. Lawe St., Appleton, WI 54915; 414-749-2200; Contact: Dan Lay. "Ecology" premium bond is available in white and several colors and basis weights. The company also makes legal pads, envelopes, offset grades, construction paper, and index cards.

• Simpson Paper Co., One Post St., San Francisco, CA 94104; 415-391-8140; Contact: Gary Snider. "Evergreen" is a new coated and uncoated text and cover line. "Coronado SST" is a white, uncoated text and cover grade. Simpson also makes high speed xerographic and writing papers.

• The Sorg Paper Company, 901 Manchester Ave., Middletown, OH 45402; 513-420-5300; Contact: R. Kent Martin. The company produces the "Nimbus" line of offset, book and bond papers.

• Strathmore Paper Co., Westfield, MA 01085; 413-568-9111; Contact: Mary Jo Francis. Strathmore has introduced the "Renewal" line, including text, cover and writing grades. The watermarked bond contains 25 percent recovered material (cotton fiber) and 50 percent wastepaper and is guaranteed for laser printers and copiers.

• Ward Paper Co., North Mill Road, Merrill, WI 54452; 715-536-5591; Contact: Allaire Lindquist. Forward Vellum Opaque is a 50 percent recycled, acid-free offset and cover paper available in 10 colors (not white). Lake Shore 25 is a writing grade containing 25 percent cotton (recovered material) and 50 percent wastepaper. All papers are of archival quality.

• Ahlstrom Specialty Papers, Paper Corp. of the United States, 100 Fifth Avenue, New York, NY 10011; 212-645-5900; Contact: Don Marikovics. MasterArt R/C is a 50 percent recycled wastepaper grade available in 80, 90, 100 and 115 lb. text weights as well as an 85 lb. cover in both sheet and web offset.

COMPUTER PAPER, CARBONLESS, AND OFFICE PAPERS

• Appleton Papers, Inc. (West Carrollton Mill), 825 E. Wisconsin Ave., Appleton, WI 54912; 414-735-8810; Contact: Chris Wallace. Appleton makes carbonless form paper with 50 percent wastepaper content.

• FSC Paper Co., 13101 S. Pulaski Road, Alsip, IL 60658; 708-389-8520; Contact: Cecil Convey. FSC produces newsprint, groundwood computer paper, ruled white and canary writing tablets, and adding machine tape rolls containing 100 percent post-consumer content (from old newspaper).

• MacTac Printing Products Division, 4560 Darrow Road, Stowe, OH 44224; 216-688-1111; Contact: Barry Madel. MacTac "StarLiner Recycled" is a new pressure sensitive paper line with 50 percent wastepaper content, available in three sizes, in offset, matte coated and high gloss.

• Mead Paper, Fine Paper Division, 353 South Paint St., P.O. Box 2500, Chillicothe, OH 45601; 614-772-3819; Contact: Tom Lovensheimer. Mead's "Trans rite" and "Trans tab" carbonless grades have an average nine percent wastepaper content.

• M.D. Valentine Paper Company, P.O. Box 280, Lockport, LA 70374; 504-532-3313; Contact: Rosetta Gaudet. The company produces offset, tablet, and postcard grades.

• Moore Business Forms & Systems Division; 1205 North Milwaukee Ave., Glenview, IL 60025-2496; 708-480-3000; Contact: Gorlyn H. Bronstad. Moore manufactures computer stock forms which meet a 50 percent wastepaper standard as well as groundwood grades which meet a 100 percent post-consumer content standard (FSC Paper).

• Performance Computer Forms, 21673 Cedar Ave. Lakeville, MN 55044; 612-469-1400; Contact: Roger Krejci. The company's "Reform" line includes several products made from papers which meet EPA wastepaper standards, including "Reform Cut Size Xerographic," "Reform-PB," a register bond computer paper, and "Reform-SB," a 100 percent post-consumer groundwood computer paper (from FSC—see FSC listing).

• Seaman Paper Company, P.O. Box 21, Baldwinville, MA 01426; 508-939-5356; Contact: George D. Jones II. Seaman Paper Company makes lightweight specialty papers, including opaque free sheet printing papers (20 to 35 lb. basis weights) and converting bond (9 to 16 lb. basis weights) which meet a 50 percent wastepaper standard.

• Specialty Paperboard, Inc., P.O. Box 498, Brattleboro, VT 05302; 802-527-0365; Contact: John R. Kondos. The company produces file folders, red wallet and hanging file folders, all which exceed 50 percent wastepaper content.

ENVELOPE MILLS AND CONVERTERS

• CPM, Inc., P.O. Box 1280, 131 Sullivan St., Clairemont, NH 03743-1280; 603-542-2592; Contact: David Stiles. Manufactures kraft and white stock for envelopes and school supplies.

• MacKay Envelope Corporation, 2100 Elm St., SE, Minneapolis, MN 55414; 612-331-9311; Contact: Robert Bergeth. Manufactures No. 20 and No. 24 envelopes which meet a 50 percent wastepaper content standard.

• Niagara Envelope Group, Inc., 693 Seneca Street, 5th Floor, Buffalo, NY 14210-1395; 716-854-8204, ext. 56; Contact: Cynthia Horrigan. Preservation Wove is a new commodity envelope available in Sub 24 basis weight.

• Westvaco Corporation, 299 Park Ave., New York, NY 10171; 212-688-5000; Contact: Donald F. Hilke, Jr. "American Eagle" envelope wove is available in sub 20, 24 and 28 basis weights.

Editor's Note: The Center for Earth Resource Management Applications (CERMA) publishes a newsletter, Recycled Paper News *(703-642-1120). Another new publication,* RPG—Recycled Products Guide, *is also available (800-267-0707).*

publications

The New Corporate Magazine

Follow the team that creates Japan Airlines' award-winning inflight magazine,* WINDS *(plus sidebar tips for turning your corporate magazine into a profit center).

By James Morris-Lee

More and more companies and nonprofit institutions are finding corporate magazines a sure way to combine the power of public relations, the impact of space advertising and the targetability of direct mail. In fact, the business of building single-sponsor magazines now ranks as a multi-billion dollar enterprise. Boston University's *Bostonia*, for example, serves double-duty as PR and profitable city magazine, with newsstand sales rivaling those of the largest regional publications.

But whether they are corporate or institutionally sponsored, gone are the days when single-sponsor magazines were the poor stepchildren of consumer publications. Like the best consumer magazines, they focus on what readers want to read about, rather than on what companies want to say.

"Corporate magazines must function as PR tools first, and as advertising tools second," says John Brady, partner at Brady and Paul, the Boston firm which specializes in designing new magazines and graphically revitalizing older ones. "As a result, they have to be shaped very carefully as editorial concepts before turning them into real, live publications."

Some of the most carefully shaped of this breed of corporate magazines are the inflight magazines for airlines. One such soaring—and highly profitable—title is the stunningly beautiful *WINDS*, the monthly of Japan Air Lines (JAL) that has garnered dozens of international design and desktop publishing awards. But the beauty of *WINDS* is a lot more than skin deep. This publication not only serves to reduce passenger boredom on long overseas flights, but provides readers with a useful informational service as well: *WINDS* introduces Asian travelers to Western culture, and Western travelers to the culture of Japan.

In fact, *WINDS* is really two magazines in one. The back half of the publication is in Japanese, the front half in English. Each "side," however, is not simply a translation of the other, but a separate magazine, run by its own independent editorial and design company. The English side is produced by Emphasis Inc.; the Japanese side is handled by another independent company, Les Mains Publications. Both are located in Tokyo but they are rarely in contact with one another.

This two-in-one approach keeps travelers from Japan to U.S. and European destinations abreast of what is happening culturally in those parts of the world by a staff of Asian journalists attuned to their informational needs; likewise Western travelers are informed of what is new and changing in Asian culture by a group of English-speaking editors, writers and designers.

BUILDING ADVERTISER SUPPORT

WINDS had a strong advertising revenue base from its inception in 1979, but the effort to build an even stronger one began with the opening of an ad representative's office in New York—up until then it never had U.S. representation. The office was established by Janet Morris, a Japan Airlines' employee with extensive media planning experience.

DEVELOPING A 'HIT' LIST While cultivating advertisers for a major publication may sound glamorous, in fact Morris' days were filled with the tedium of developing lists of potential advertisers. "Our procedure was quite simple, really," she says. "We started with the agency red book and made a list of advertisers we thought might be interested in reaching our customers through *WINDS*. We then identi-

fied the advertiser's agency, making a list of account executives and media buyers handling that account. Of course, we called to make sure that those listed were still with the agency."

The following critical facts were included in *WINDS'* newly created media kit to help sell the publication to potential advertisers:

- Passenger figures for international destinations—totaled by destination.
- Editorial calendar—with a short description of the content of each article.
- Advertising space units—with page layouts indicating how bleed and non-bleed full pages, vertical and horizontal half and one-third pages could appear in the magazine.
- Notes on submissions—including instructions on preparation and advertising rates.

Of course, with more than 630,000 international passengers per month—virtually all captive readers looking to relieve the boredom of long overseas' flights averaging eight hours—the publication represented an ideal media outlet and low-risk opportunity for advertisers looking to expand the reach of their ad messages.

"By 1988, we were solidly in the black," says Morris. "And we were faced with a different problem: maintaining the editorial-to-ad ratio that helped interest advertisers in the first place."

AD/EDIT RATIO JAL believes that maintaining a healthy portion of editorial matter—currently almost 70 percent of each issue—is important, since the publication is first and foremost an informational service to JAL passengers. This does, however, create something of a problem for advertisers. "We can't expand the size of the publication to accommodate additional ads because that would add to its overall weight, which is now optimal for us," says Morris. "Keep in mind that every extra ounce on passenger aircraft adds to fuel consumption, and each magazine may travel as much as 40,000 miles in any given month. So adding pages isn't economically feasible."

As a result, she encourages would-be advertisers to plan their schedules well in advance of each issue—something that is not always possible since each issue closes three months prior to publication, and considering that ad agency media schedules are most often planned quarterly.

WINDS Color Layouts Soar In the quest to foster readership in Japan Airlines' flight magazine, nothing is left to chance. Dominant colors from visuals are picked up in major headlines—and again in dropped initial caps and blurbs. The publication's front cover flag has also been carefully condensed and its letterspacing proportioned so its second-color drop shadow can pick up the dominant color of the cover photograph.

Still, it's the kind of success problem many publishers would love to have.

Though a prerequisite for success, healthy advertising sales are only part of this publication's success story. While Morris and her team were chasing down advertisers in New York, *WINDS*' Tokyo-based editorial and design teams were grappling with the twin issues of content and visual appeal.

ACHIEVING THE BEST MIX

Open an issue of *WINDS* to the English-speaking section and you are likely to find articles on the Japanese house, both old and new; a tour and review of Japan's Kansai district, famed for the beauty of its landscape; role redefinition among Japanese men and their relationship to their families; or a piece on the Karawari River tribespeople of New Guinea. If you are Japanese, you will read about business women, America's East Coast, Hawaii (the most popular travel destination for Japanese travelers) or samurai sword enthusiasts in Texas (this piece was also in the English section). And to simplify last-minute decision-making while traveling, each issue houses a handy chart listing services and costs for limousines, buses, taxes—with currency conversion tables—for every city served by JAL.

According to editor-in-chief Tom Chapman, a former San Francisco resident who initially went to Japan in 1965 to join Dentsu Inc., an advertising firm in Tokyo, it's all part of what makes *WINDS* "not just another travel magazine, but more of a special-interest feature magazine."

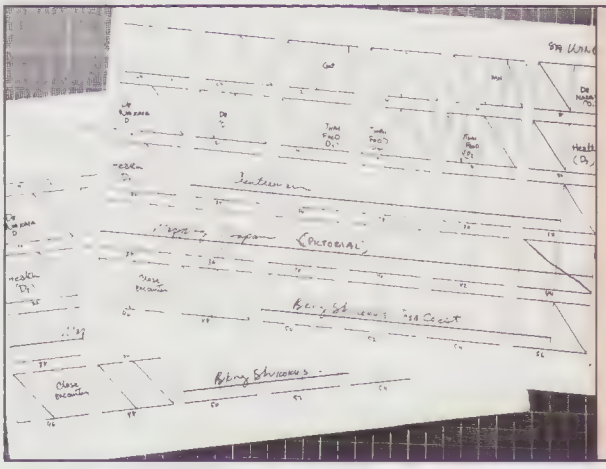
Those features can, and often do, run as long as 15,000 words, making the magazine one of the few remaining in the world which publishes articles of such length. Famous bylines like Yukio Mishima and Isaac Asimov are featured among those of the best new young talent in Japan.

"Sooner or later, if they're a writer working in Japan, and they're any good at all, they contact us," adds Chapman. "We enjoy excellent relationships with freelance writers. Ninety percent of the copy for this book comes from freelancers. We try to remain open to ideas; anything with a fresh twist or unusual angle."

If you are a writer planning on submitting copy, though, you had better hurry if you want to see your name in print soon. The editorial schedule for *WINDS* is planned six months in advance. "We have to plan ahead very carefully," says Chapman, "since our half of the publication, which runs some 90 to 100 pages, is put together by a staff of five people."

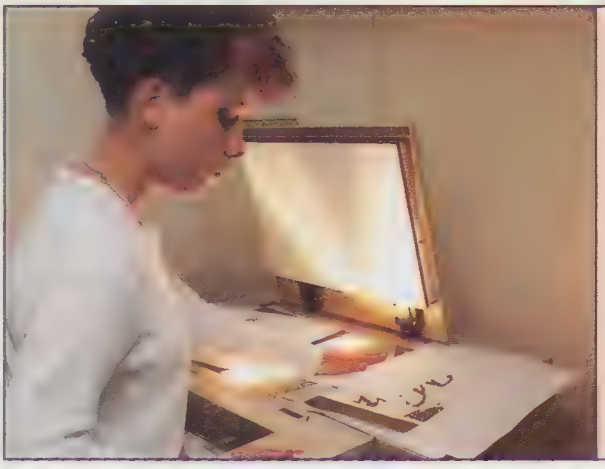
MAC-BASED PRODUCTION

Part of what makes that possible is one of the largest Apple computer networks in Japan. Emphasis' Macs are overseen by another *WINDS* editor, Brian Haverty. Haverty joined Emphasis in 1986, at which time copy was being keyboarded and output on a Wang phototypesetting system. Because he had an interest in computers, Haverty was put in charge of the Emphasis study group that decided on



1 The thumbnail page planner helps editors and art directors consider the pace of the book during the feature and department layout phases. To avoid readership loss in jumping readers to story endings at the back of the magazine, all stories are edited to end in the space allotted. This practice also eliminates ugly catch-all pages at the back of the book.

2 In her work on the opening spread for the article "Mapping Japan," designer Sheli Bowman explored a variety of headline treatments on screen in Galliard Italic, Cochin and Zapf Chancery—using Aldus FreeHand to condense, expand or skew letterforms before she decided to hand-draw the initial caps of the article headline with a calligraphic treatment.



3 To give the headline an antique feel—the article is about the early maps of Japan—she photocopies the calligraphy from one of the antique maps and enlarges it on the photocopier in preparation for hand drawing the initial caps.

the Macintosh system. "Immediately after the system was installed, I attended a number of seminars on desktop publishing. It was these seminars that helped me determine how best to switch over and implement our new system.

"We looked at a bunch of systems," says Haverty, but the Macs seemed to give us the interface we were looking for between copy and art, plus the ease of operation enabled people to become competent more quickly." Starting with 12 stations, the system has grown to 22 SE's and six Mac II's, all with SuperMac screens, along with a Linotronic 300 imagesetter for producing typeset-quality repro. (Text is entered and edited using Microsoft Word 4.0.) Font choices include a fairly complete menu, but designers at Emphasis do not have the capability to output Kanji characters on the Lino.

"Outline fonts for Chinese characters are always a long time coming," adds Haverty, "since there are more than 3,000 unique characters in the language. It's one of the things that deterred the adoption of Mac-based DTP technology in Japan."

In spite of their extensive page makeup capability, *WINDS* usually divides conceptual and practical tasks. Designers still work to a great extent with pencil and paper, although they now do some conceptual work on the Mac.

"Since our Japanese page makeup people were trained as typesetters they tend to look at type very carefully when executing design work," says Haverty. "But there's also a fundamental problem with having art directors design directly at the computer. It's so tempting to play 'what if' that it actually takes most designers longer to execute a design on screen. There are just too many possibilities to get lost in."

For that reason preliminary design decisions are more often "cut and paste," rather than electronic. The technology comes into play, however, in the process of enhancing the visual interest of headlines and other key graphic elements.

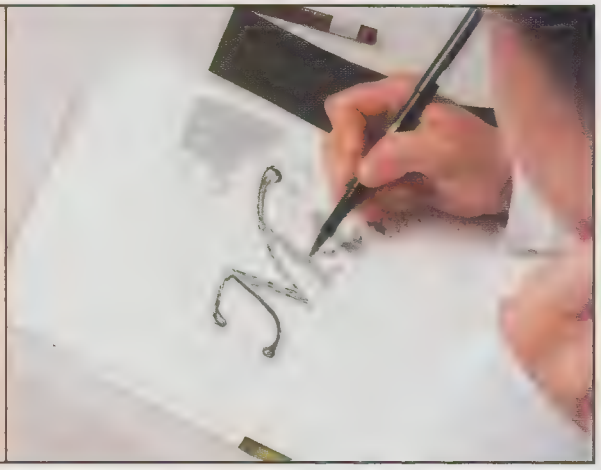
THE LAYOUT PROCESS

Layout does not begin until the story has been written and output in galley-proof format. "When copy is completed, the publication almost puts itself together," says designer Sheli Bowman, who came to Japan in 1986 to join a firm which specialized in developing corporate identity programs. "The job of developing layouts is more involving because we're not just looking for good ideas in presenting articles, but the best possible way to involve readers in each story."

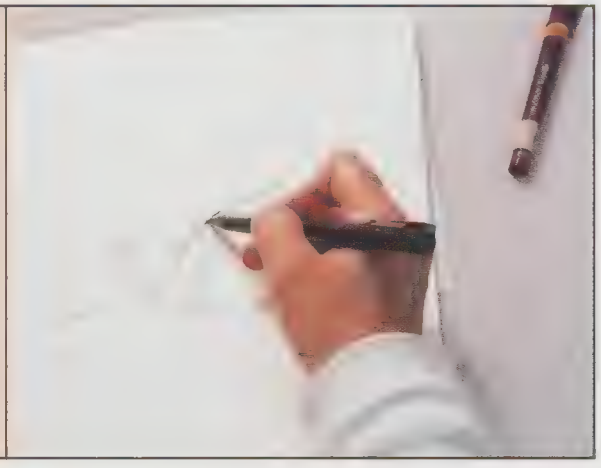
As a result, she believes that, even though the publication is produced using computer technology, the overall look of each issue doesn't have the under-designed (or, worse, over-designed) quality typical of many DTP-produced publications. And since preliminary conceptual work is done by hand, designers avoid overdependence on the computers.

The process really heats up when all copy for an issue is output on a laser printer

4 Using a No. 0.2 Zebra Miri pen (similar to a Pilot Razor Point), she traced over the enlarged caps on Izumiya Trede paper, a Japanese brand of tracing paper. Although a Macintosh system is available for this sort of work, Bowman resorts to traditional methods when she feels it is appropriate.



5 In preparation for the inking stage, she continued work on the letterforms, adjusting them optically with her pen until she was pleased with their design. Bowman will also use Freehand on the Mac to condense, expand, or skew letters when necessary.



6 Using her Rotring .20, she inked over the tracing to create the final initial letters which she then combined with the Mac-set type—"__apping __apan," set in 14 pt. Cochin. The traditionally- and electronically-rendered components mesh seamlessly.

TOWARD SUCCESS—EVEN PROFITS

While not everyone's company or client company has the budget for a publication the caliber of *WINDS*, there are a number of procedures that can help make for the best possible publication under even the tightest budgetary constraints. Here are some simple tips which can help make your publication stand out from the crowd, followed by some advice if you plan to go "for-profit" and solicit advertiser support.

1. Look at a year's worth of competing publications. Whether accepting advertising or not, your company's magazine will compete for the time and attention of increasingly overcommunicated readers. Examine a year's worth of competing publications, their circulations and their editorial biases, to search out gaps and overlaps in coverage.

2. Use phone research to determine what readers want to read about most. While many readers are reluctant to respond to traditional market surveys, opinion polls from new publications make interviewees feel important, that their opinion and insights are valuable. Use this advantage to find out what's uppermost in reader's minds; tap hidden agendas, fears and anxieties. Fully addressing those anxieties can become an important part of your editorial platform and helps ensure readership.

3. Foster "shelf-life." Unlike many corporate magazines that are long on company promotion and short on solid, useful information, the most successful new corporate magazines present valuable, "save-me" material in an easy-to-read, non-condescending style. In the process, this approach fosters long shelf-life for its information and encourages high pass-along readership.

4. Communicate with everyone on the team early in the game. Developing a first-class magazine is logistically complex. Achieving optimal quality involves bringing production people into the design process as soon as possible to analyze any potential production problems.

GETTING ADVERTISER SUPPORT

These days marketers are looking for ever-more-qualified names to communicate with, and with reaching out to regional customers that may represent but a small fraction of the circulation of national publications.

Departures Another successful corporate magazine is *Departures*, published by American Express.

This trend argues well for companies that can deliver highly qualified customers to advertisers through the pages of high-quality corporate magazines.

All is not golden, however, in trying to get other advertisers to subsidize your company's corporate magazine. Even so, more firms are realizing that they can leverage the buying power of their readers into subsidizing the cost of magazine production, printing, postage and mail handling by accepting paid advertising.

The following procedures outline some of the things that need to be thought through when turning a corporate magazine into a profit center:

• *How much will advertising add to the cost of production?*
If you decide you want to consider accepting paid advertising, your staffing requirements will include an ad manager (or your production manager will need to handle this additional responsibility). If you accept less than full-page units, production time and costs will also increase since the publication can't be configured until all ads are in.

In addition, if your publication goes to industrial specifiers you will need to provide "bingo" numbers for ads, and incur the cost of first-class postage both from ad respondents and to advertisers.

• *What should you charge per page?*
Check the ad rates for competing publications against the circulation information offered in the industry's reporting "bible," "SRDS Business Publication Rates and Data." Unless you have an extremely refined, highly qualified database, your ad rates will need to be very competitive to attract advertisers away from existing publications.

In fact, it's not unusual for a new publication to provide free ads in the first issue or two to fatten the book—and prove audience responsiveness to ad messages.

• *Who's going to sell ad space?*
This is one of the hardest decisions you will face when going from single-sponsor to commercial publication. If you use a rep organization to sell advertising space, expect to pay anywhere from 20 to 40 percent commission on all sales—even if you provide the contacts.

If you decide to have the commission and sell direct, you will need to hire an ad sales manager, plus pay travel and entertainment costs. Good sales managers do not come inexpensively—in some cases, out-earning publishers of commercial magazines.

• *How should the magazine be promoted to advertisers?*
Scan all media kits from competing publications to see how they present and build a case for advertising in their magazines. The best media kits are really abbreviated argumentative essays—supported by facts, facts and more facts.

• *Fulfillment—in-house or outside service bureau?*
Lastly, you will want to consider fulfillment—the process of entering subscriber names, printing out mailing labels and postal service reports, and sending out renewal notices.

If you do it out of house, expect to pay anywhere from a dollar to two dollars per name, per year for this service.

at 10/11 point New Baskerville in either a two- or three-column format.

These early galleys are used to check overall length and for reference as the overall design progresses. The size and number of all ads is provided by JAL and the book's pagination is created.

Chapman also selects visuals at this point. "If the visuals are photographic, I choose about 40 to 100 slides, although pictorials and special cases can involve sorting through hundreds of slides."

The layout evolves as the staff experiments with laser galleys and photocopies of the illustrations and photos on paste-up boards that carry *WINDS*' grid. "During this time, I frequently play with various elements on the Mac, of if necessary, pull from type sample books," says Bowman.

When the layout is completed and pasted down, the boards are photocopied onto 3M Design Bond and sent to the typesetter together with diskettes carrying the magazine copy. The typesetter uses PageMaker to juggle type around as specified on the dummies. "If I have produced any of the elements on the Mac, the typesetter will use my disk and incorporate them," the designer says. "I make design changes and she incorporates them until I am satisfied with the design."

The finessed copy is once again put down on the boards, photocopied and proofed. Call-outs and captions are added, a final proof is made and the files are output to the L300.

The Lino output is waxed and pasted into "hanshita," Japanese for mechanicals. Four copies are made from these boards—one for JAL and three for proofing.

DESIGN FLEXIBILITY In spite of this somewhat traditional approach taken by the design team at *WINDS*, there is lots of room to experiment with the technology to create interesting and unique typography and layout treatments. Through a carefully portioned dose of unique fonts and changes in their position—with lots of split heads and subheads—the team adds variety and elegance to the publication. (See Figures 1 through 6.)

"Sometimes we'll combine an existing typeface with a hand-drawn one through Aldus Freehand," says Bowman. "Right now I'm working on an article called 'Mapping Japan,' about the first cartographers in the country. To give the headline an antique feel I adapted different bits of the calligraphy on one of these antique maps, enlarged them and developed initial caps for the headline in keeping with the look of 17th century hand-drawn map legends." (See Figure 7.)

She says Freehand also allows her the creative flexibility she needs in designing type. She can condense, expand, or skew type and adjust letterspacing and leading for multiple fonts and type families even within the same text block.

Bowman believes that the teamwork involved between production, art and editorial is what makes the book special—and fun to produce. Also, the rather lengthy lead times involved in producing a story also help assure that each article gets the time and attention it deserves.

WHAT'S AHEAD

The difference between the successful corporate magazines of today and corporate magazines of the past is that these publications concentrate on useful content; solid, valuable information rather than company puffery.

Many companies and other organizations are now finding that the way to get attention for their products or services is to first get readership. And the best way to get readership is to design a publication to appeal to what readers need and want to know to do their jobs better.

Getting that level of information into a first-class, reader-garnering magazine requires teamwork—and greater dialogue and exchange of ideas among writers, designers, photographers and production people at every stage of the editorial and production process.

By addressing major problems up front, coupled with the fine-tuning capabilities of computerized design and production, many single-sponsor magazine producers are finding they can successfully muscle competing commercial publications right off readers' desks. In fact, the best of these new corporate magazines forget momentarily that they are indeed corporate magazines. ■

James Morris-Lee is president of Morris-Lee & Tilden Inc., of Pennington, N.J., a marketing communications consulting firm which specializes in corporate book and magazine design and production.

7 She pasted down a stat of the headline on the PageMaker layouts for position only. The electronic production designers would use her final dummy as reference when they assembled the final mechanicals (called "hanshita" in Japanese) for output on the Linotronic.

8 The final spread accomplishes what Bowman set out to do. It captures the look of the 17th century hand-drawn map legends through a combination of traditional and electronic methods.

3-D Impact on the Desktop

Here's how to use an inexpensive 3-D program in conjunction with object-oriented illustration for higher productivity at lower cost.

/ Simon Tuckett

As electronic illustrators, we are constantly looking for timesaving ways to generate artwork by integrating one application with another. Traditionally, 3-D programs have been expensive both in terms of cost of the initial program and in the amount of time required to produce results. But through planning, simplicity and a low-cost 3-D imaging program, combined with a professional object-oriented drawing program, the designer can produce three-dimensional images cost effectively.

To get a clearer understanding of how the process works, this article will follow the creation of some editorial art for a magazine proposal. The very fact that it *was* a proposal immediately placed time constraints on the project.

3-D SOFTWARE

Like many of the current 3-D applications, the program I used for this project, called Zing (Enabling Technologies), allows the user to save bitmap screen images of the image in the TIFF and PICT formats and as object-oriented files in the Illustrator 1.1 file format. The 1.1 files can be directly opened in either Adobe Illustrator or Aldus FreeHand. Saving images in this format immediately opens the product of your 3-D sessions to subsequent modification and embellishment in an object-oriented environment. In addition, the 3-D application can be used to produce templates for work in other programs.

Founded in a cube-like universe, the program has a few useful object primitives that are created for you: four spheres, a wedge and a cube. You can create your own objects in either of two work areas: the Profiler or the Lathe. Every object you place in the program's universe arrives in the center and is then moved to a different location.

For initial work, the Universe has a number of different views available (Front, Back, Top, Bottom, Left and Right). Here the object can be scaled, rotated or merged with another. Subsequent viewing takes place in the Camera view, which allows the user to look at the universe from any angle, position, lighting intensity and relative perspective desired. (The camera view is solely for viewing. Arrive at a viewing angle that you like and you can save the image in another format.)

PRELIMINARY DESIGN

The assignment was to suggest a high-tech look at traditional and contemporary illustration techniques, and I could think of no more apt symbol of contemporary illustration than the technical pen. I wanted not only depth but a lot of impact, and while the pencil sketch on paper conveys little of the detail in the final illustration, it does convey the vitality of the final piece. (See Figure 1.)

Having decided on the style and composition of the illustration, I then determined in what environment it would be done. The background could easily be created in "2-D" in Adobe Illustrator. After looking at the angle of perspective on the cylindrical technical pen, though, I elected to use a 3-D program; it would take too long to calculate the ovals around the barrel in a regular drawing program. Even so, three-dimensional programs are themselves time consuming.

To use a 3-D program efficiently, it is necessary to first produce a guide for the three-dimensional object. You can go into the 3-D program and start building, but I have learned from experience that the three-dimensional environment is one in which you can easily get lost, caught up in details and sent back over the same territory merely because your work session had not been carefully planned.

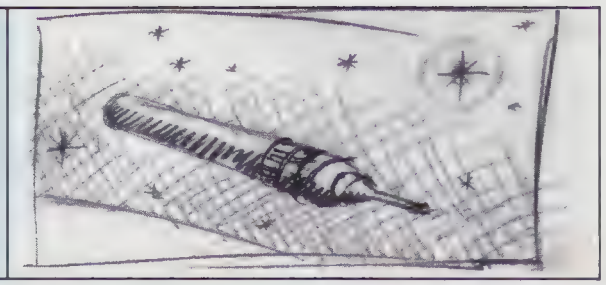
CREATING A GUIDE Sometimes a profile outline has already been created or, as in this particular case, it may be easier to quickly draw one first in a drawing program. Unfortunately, directly importing the outline into this particular three-dimensional environment is impossible; this program does not allow the import of existing outlines. Instead, I had to create a guide. (See Figure 2.)

First, in your object-oriented drawing program (FreeHand or Illustrator will do) create a grid that is 50 units high and 10 units wide. Above this place a proportionately correct outline of your object. In the more highly detailed areas of your object, you may need to build a finer grid with 10 units between each major division. Represent these with half-point rules. Number the major horizontal divisions from 25 at the top to -25 at the bottom; you will need to refer to these. Scale your artwork to sit comfortably on this grid and print it out. Then in those parts of the image that require a greater attention to detail, create a finer grid with tenth of a point rules between the major divisions. (See Figure 3.) I generally print the grid once at full size for an overall view of the shape and then again print the detailed areas at 400 percent. This type of grid is specific to the Zing Profiler work area, but any 3-D program you use will probably benefit from a similar guide, as it will speed up the process of building real objects. In addition, after you have created the grid once, it can be stored as a template for any future outlines you may wish to generate.

Then, in Zing, I set the program to read in points with a Creation Scale Factor of 30 and one unit per major division on the grid. With the Show Units set to "on," the sizes of various cross sections (called ribs) and their relative positions were read off the quick prints and used as reference

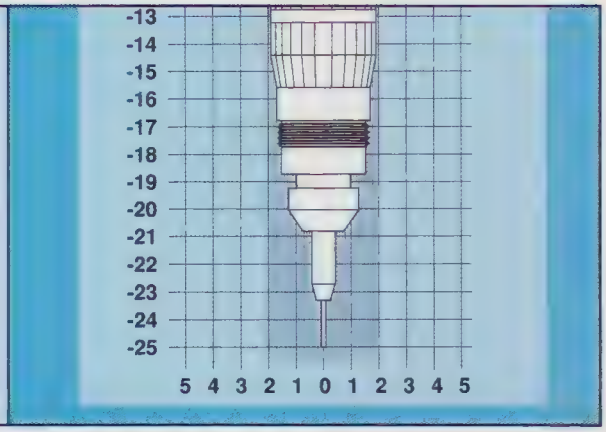
Pens in Space The convincing perspective in this illustration was created using only an inexpensive 3-D program called Zing (Enabling Technologies) and Adobe Illustrator.

1 To begin rendering the technical pen, first I sketched it out on a piece of paper. Several angles were done to give the impression that the pen was "orbiting" the earth.

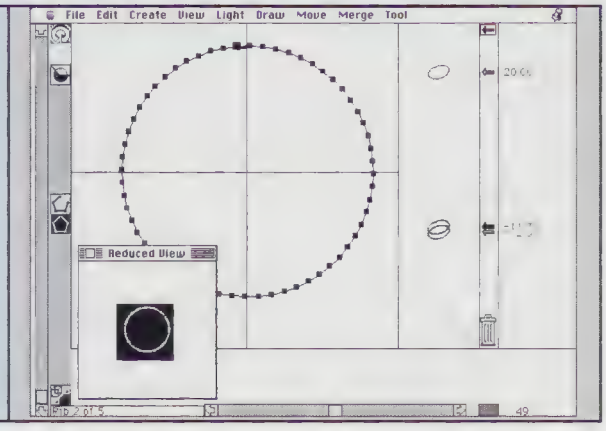


2 The elevation plan was generated in FreeHand with a grid 45 units high (1) and 10 units wide (2). Over this, a proportionately correct side elevation of the technical pen was superimposed (3). A grid such as this one can be stored for use with future illustrations.

3 Under the detailed areas an even finer grid was added which broke the major divisions into 10 units each. It was from this grid that the dimensions were read off when building the object profile.



4 The Profiler has two areas on the screen. The left side is reserved for a cross section of your object. On the right is an isometric view called a Rib Well. It is here that the cross sections of the pen are added and removed, but their shapes are edited in the left part of the window.



while building the shape.

BUILDING THE OBJECT

I launched Zing and chose to work in the Profiler. Similar work could have been done in the Lathe work area because the major shape of the pen is cylindrical. But I chose the Profiler largely because I wanted to include a grip on the pen barrel and this was more easily created while working on cross sections of the object.

When you start with a fresh Profiler document, the screen is divided into two sections. On the left side you have the cross section of the object; on the right you have an isometric wire frame view of the object you are creating. (See Figure 4.) In this case I first defined that I wanted 60 points around the circumference of my circles to ensure a smooth curvature around the barrel. Then, once that had been set, I drew a circle that, according to my guide, would be four units in diameter. Once the circle was closed, it became what the programmers call a rib. Duplicates of this rib were placed and dragged down the rib well; when I arrived at the grip part of the barrel, the positions of the points were manipulated. (See Figure 5.)

After placing the grip on the barrel underneath the small collar, I then returned to the original rib at the top, made a copy of that and placed it directly above the rib at the end of the grip. Using this rib established the profile of the barrel as a smooth circle once again. Another duplicate was taken from here to the end of the barrel. Had the object been rendered at this point it would have looked like a tube with a grooved collar near the end. (See Figure 6.)

Then came the complicated part of the profile: A series of bumps and grooves that would suggest the metal and plastic end of the pen, including the thread for holding the cap on the pen. To accomplish this, it was necessary to refer to the enlarged reference illustration I had done featuring the fine grid in the background. I noted the relative widths of the cross sections and the distance between each. (See Figure 7.) By referring to the object-size window, I could rely on the on-screen readout for dimensioning of the outline.

CLEARING THE SCREEN To reduce the screen clutter, I turned off the wire spars item. I knew what the pen looked like, so it was not necessary to see it in the isometric view every time something was changed. Subsequent ribs were placed in the same fashion as before; however, this time more use was made of the scaling function of

the program. By selecting all the points, the program will give you a series of handles, which can then be used to scale the entire cross section. With the shift key depressed, the points will scale down proportionately on its center. The scale function was used frequently, owing to the reduction of the pen's diameter as I moved toward the nib. Most of the time I simply referred to my image guide and checked my settings with the on-screen ribs. Working this way is rather like flying a plane on instruments: Using the gauges will get you there, but it isn't half as much fun as just "winging it."

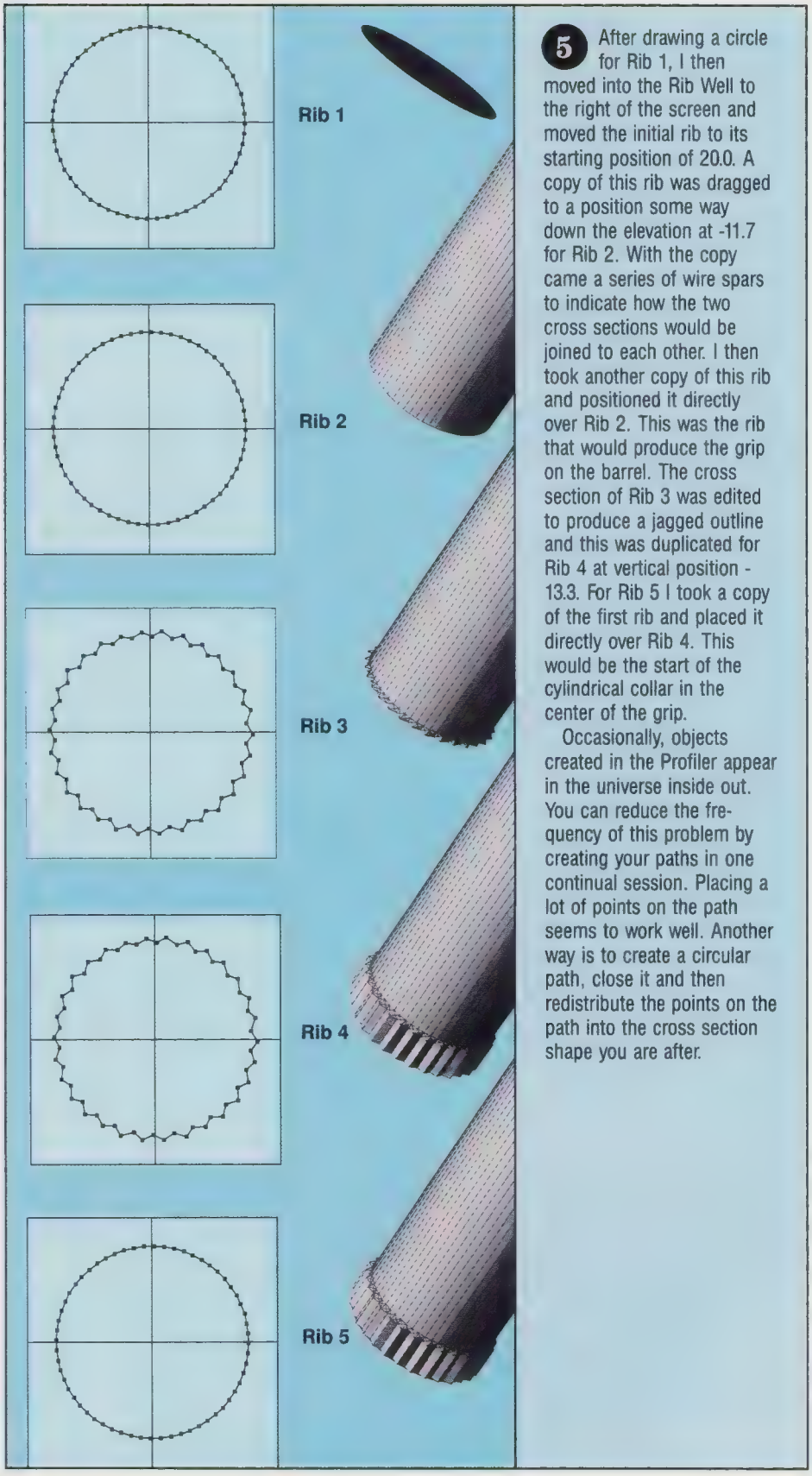
SCREEN TEST With the ribs and spars complete, it is time to check whether the pen looked OK. To do this, I clicked once on the Make Solid icon and waited for a minute or so. The program returned to the camera view, and I spent several minutes rotating the object to see it from different angles just to make sure that it really did look like a technical pen—albeit a dull gray one. (See Figure 8.) Now the pen needed color.

ADDING COLOR

Objects, ribs and polygons can all be defined as painted in different colors. On screen the colors are bright and well saturated. Saved as Illustrator 1.1 files, they appear a lot more dull, due to the addition of black in the darker areas. Rather than choose a color for one of the pen barrels only to go back later to correct it, I decided first to create a series of 12 crude spheres, each colored differently, and I printed these to a QMS ColorScript printer. On this printout I wrote in the specs for the colors detailing how to replicate them. (See Figure 9.)

Analysis of the printout reaffirmed the warning in the program's manual that one should define blues, greens and purples somewhat lighter than they appear on screen. As a result, when I used this sheet as a guide for the choice of the pen barrel colors, I frequently modified the lightness setting of those particular colors.

As most electronic illustrators have discovered, the addition of black is likely to create moiré patterns in some areas of your color designs with current high resolution output devices. But problems will usually not occur provided the black content does not exceed about 30 percent. Even if that amount is surpassed, moirés in smaller polygons will be unnoticeable. However, you may need to adjust the color values of the larger polygons in your

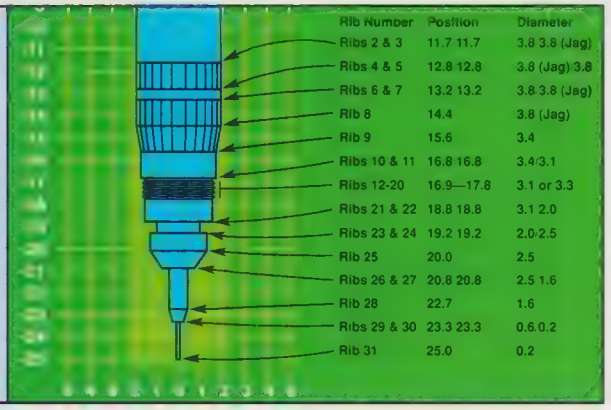


5 After drawing a circle for Rib 1, I then moved into the Rib Well to the right of the screen and moved the initial rib to its starting position of 20.0. A copy of this rib was dragged to a position some way down the elevation at -11.7 for Rib 2. With the copy came a series of wire spars to indicate how the two cross sections would be joined to each other. I then took another copy of this rib and positioned it directly over Rib 2. This was the rib that would produce the grip on the barrel. The cross section of Rib 3 was edited to produce a jagged outline and this was duplicated for Rib 4 at vertical position -13.3. For Rib 5 I took a copy of the first rib and placed it directly over Rib 4. This would be the start of the cylindrical collar in the center of the grip.

Occasionally, objects created in the Profiler appear in the universe inside out. You can reduce the frequency of this problem by creating your paths in one continual session. Placing a lot of points on the path seems to work well. Another way is to create a circular path, close it and then redistribute the points on the path into the cross section shape you are after.

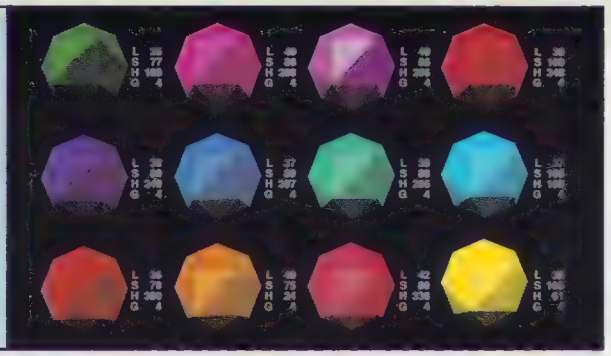
6 Had the object been rendered after the fifth rib it would have looked like this—a tube with a grooved end. There is an immediate jump to the grooves because Ribs 2 and 3 were placed on top of each other.

7 This illustration indicates the information jotted on my printout describing the pen's detailed areas. Vertical positioning for the ribs as well as current diameter of the cross section is noted.



8 The screen test of the object, after all the ribs were placed, was an all gray image of the pen. After approving this shape (no further modifications were necessary), I then returned to the Profiler to color each of the ribs.

9 To get an idea how the program's colors would appear when converted to Illustrator, I colored several spheres and then saved them in Illustrator 1.1. This file was then printed to a QMS ColorScript 100 printer. This test guided my choice of color for the pen.



final Illustrator file using a different combination of cyan-magenta-yellow to achieve the darker gray level.

COLORIZING I then returned to the profile to colorize the spars. Zing has three color models from which to choose; HLS, HSV and RGB. The only other color model people might wish to use—one which is noticeably absent in this program—is CMYK. My color test with the spheres had been done in HLS so, in the Preferences dialogue I chose to continue with that color model while working on the pen.

To define a color, you first select all the points on a rib, double click the Polygon Shade in the toned bar at the screen base and respond to the palette which then appears. (See Figure 10.) At the base of the palette is a bar called Gloss; this works with the lighting you have chosen for your subject. If there are high intensity light sources in your art, setting the gloss value at seven will give them a high contrast, producing a more reflective surface on the art than would a value of two. Defining the color in this way will quickly apply the color to all the polygons underneath that rib until it reaches the next rib. Note the colors you are using so that you will be able to repeat them later.

THE FINAL DRAWING Having completed these adjustments, I clicked on the Make Solid icon. Once in the universe I could rotate the object and duplicate it if I wished by using the clone feature. (See Figure 11.)

You may be surprised to learn that it took less time to create the pen than it did for you to read how it was made. The guide for the pen was drawn in about 10 minutes using an existing grid, the initial pen was completed in little more than 20 minutes, and subsequent arrangement and modification of the pen took another 10 minutes.

SNAPSHOT OF THE UNIVERSE I then went back into the Camera view to find an interesting viewing angle. To speed things up, this was done in wire frame mode. (See Figure 12.) I wanted an almost distorted perspective, one that would accentuate some of the details in the "craft" flying toward the viewer.

After choosing a satisfactory view, I then had to light the scene. All eight preset lighting options were tried but I eventually chose to custom light the scene by calling up Custom Lighting and arranging four different light sources of differing intensity around a sphere. (See Figure 13.) This lighting was tested in the Camera view, a few minor adjustments were

made and the scene was saved as an Illustrator 1.1 file.

BUILDING A BACKGROUND

At this point I moved into Adobe Illustrator to create the space scene that would support the technical pen. At the base lay a simple black rectangle with 30 percent cyan added to make the black a little more rich. In the lower left corner, I inserted a slightly curved blend of shapes that ramped from the blue/black through to a 70 percent cyan, and then down to a 20 percent cyan in the corner. This was to suggest the periphery of a planetary atmosphere.

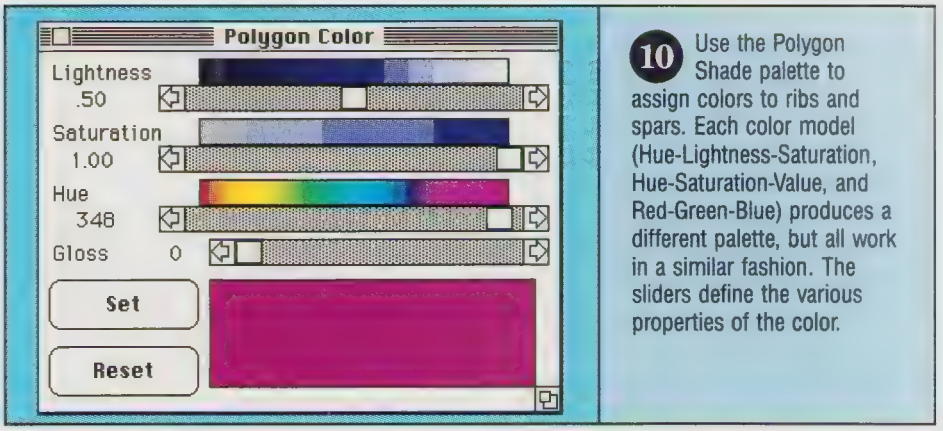
STARS I also created a star using Adobe Illustrator. I rendered four concentric circles with blends between them—naturally, the smallest was on top. In terms of color, they ramped from the blue/black to black to an 80 percent yellow to white. Above that I placed a blend of horizontal rules of half a point thickness that ramped from the blue/black to white. A copy of the arrangement was rotated 90 degrees and centered over the circles. These lines were duplicated over the same position, rotated 45 degrees and scaled by 75 percent for the shorter diagonal lines (See Figure 14).

The image of the technical pen was opened and then copied and pasted into the background I had created. I moved it around and scaled it until the pen reflected the feel I had in mind for the image. Then I placed copies of the original star judiciously around the image at various scales and added a trailing ramp behind the pen to suggest movement. (See Figure 15.)

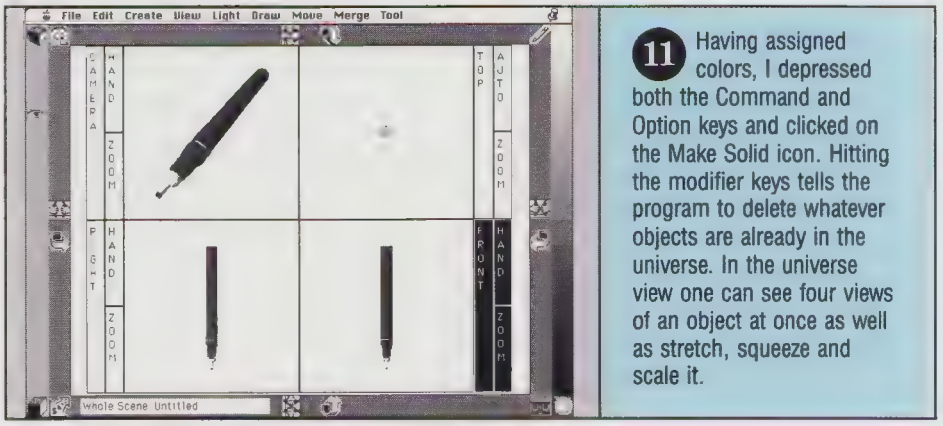
TIPS ON USING ZING

The Profiler is frequently annoying in that some objects you create arrive in the universe inside out. This is disturbing for both the object and its creator. The manual makes little or no mention of it so I assume that it is a bug and that it will be fixed. This can happen with some of the simplest shapes. One of the things you can do to reduce the frequency of its occurrence is to create your paths in one continual session. Placing a lot of points on the path seems to work as well. Another way is to create a circular path, close it and then redistribute the points on the path into the cross section shape you are after. The problems usually occur around your start-finish point, so if you can start in a spot that won't be seen, you are less likely to run into difficulties.

CONSTRAINTS Naturally, with a program that costs around $200, there are going to



10 Use the Polygon Shade palette to assign colors to ribs and spars. Each color model (Hue-Lightness-Saturation, Hue-Saturation-Value, and Red-Green-Blue) produces a different palette, but all work in a similar fashion. The sliders define the various properties of the color.



11 Having assigned colors, I depressed both the Command and Option keys and clicked on the Make Solid icon. Hitting the modifier keys tells the program to delete whatever objects are already in the universe. In the universe view one can see four views of an object at once as well as stretch, squeeze and scale it.

ZING'S POWER TOOLS

In Zing, Lathe objects are cylindrical at their simplest level and then become more complicated. (See Figure 1.) The Profiler work area is for working with cross section elevations of shapes. (See Figure 2.) Most simple shapes can be generated in either of these two work areas when using Zing. After having created the shape, you can then transport it into your own universe.

Figure 1 Zing's Lathe creates objects that are cylindrical. At the simplest level one could produce a cylinder or, with a more elaborate outline, a detailed vase.

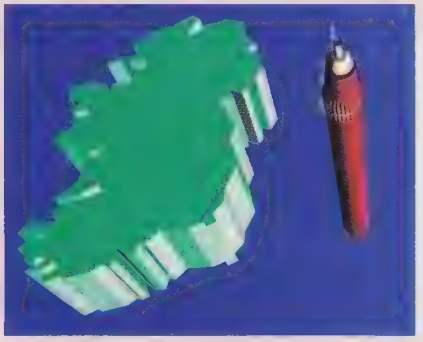


Figure 2 The program's Profiler allows the manipulation of an object's cross section. This includes simple or more complex objects, like the pen in the main article.

MERGING SHAPES

By far the most useful feature of Zing is its ability to merge one object with another. The program allows for four different types of merges. (See Figure 1.)

- Union merges are perhaps the most frequently used. Here, two objects join to one another. The three-dimensional space which they both occupy becomes part of the complete object.
- Subtraction merges occur when one object is subtracted from another. By defining one object as Anti-Matter (sounds like something out of a science fiction novel), you are telling the program to subtract it from the other.
- Intersection merges are those in which two objects merge, leaving a shape described by their intersection in three-dimensional space.
- Embossing is the last form of merge. It allows one of your objects to be embossed onto another.

'MERGING' A PENCIL A pencil I rendered in Zing would have been extremely difficult to create in the Profiler as one complete piece, largely because the sharpened end featured a circular cross section and the barrel of the pencil had a hexagonal cross-section. By using the merge feature, I was able to produce a realistic looking pencil.

First, a cone and a barrel were created and colored in the Profiler. (See Figure 2.) Then the cone of the pencil was merged with a cube in a subtraction merge (the pencil nib was subtracted from a cube). (See Figure 3.)

The pencil barrel was then inserted into the conical depression left by the nib. The cube and the barrel were then merged again, this time with the cube subtracting from the pencil barrel. (See Figure 4.) Throughout these merges the color and gloss settings of the pencil nib were retained; first they were embossed onto the cube during the subtraction merge and then back onto the pencil barrel during the second subtraction merge.

Figure 1

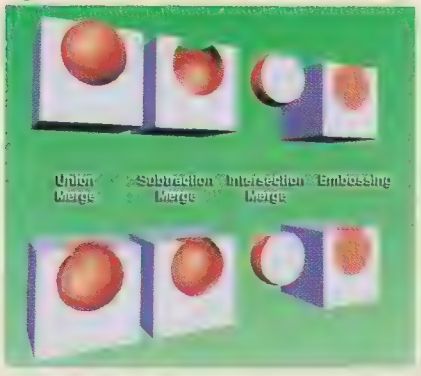


Figure 2

Figure 3

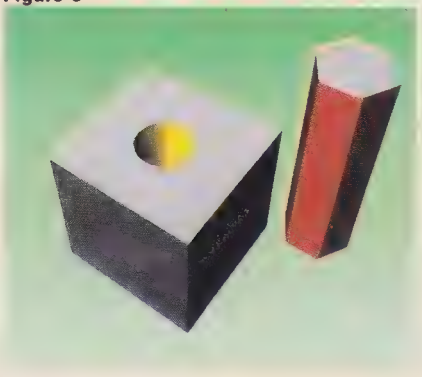


Figure 4

be some severe constraints. Be aware of those in advance and plan the creation of your artwork accordingly. In terms of viewing, for example, you cannot go inside an object. You cannot apply translucence or any level of transparency to an object. Once you have merged two objects (another function of Zing) you cannot take them apart or edit their ribs and component pieces. (See the sidebar "Merging Shapes" within this article.) Sound like its developers should charge less? This litany of problems is not endless, but it does indicate that to take advantage of the application, you must work by its rules and use some of them to your advantage.

TIMESAVING ADVICE The key to working with Zing is in not putting too many demands on the program or it will begin to slow down. For the opener to this article, for example, I chose to expand on the key illustration by creating multiple pens. I had to return to the Profiler to re-color the pen barrels. In all there were to be five pens. Screen redraw time was shortened by cancelling the redraw of each pen, but it still took time. And arranging the multiple pens took even longer—almost an hour. Similar wait times accompanied the building of the final image in Illustrator; it is a 1,000K file. (Refer to the opening illustration.)

MORE HINTS Read the Zing manual, especially the hint section, then read it again. There are many timesaving tips that will help you. For example, while rotating relatively complicated objects, you can set the program to show points only (polygon corners). This doubles the speed at which images will redraw on screen.

- Save at every opportunity. Zing files are relatively small so you can save as many versions of a document as you like. It is worth having branching points to which you can later return. In addition, the Profiler and Lathe documents can be later used as clip art for other applications of the same objects in different artwork.
- Use reference. Don't try to build a shape from memory. Every object contains subtle relationships between adjacent surfaces that should be replicated as faithfully as possible to ensure instant recognition in your target audience.
- Plan, plan and plan again. We have all spent hours in the greatest enlargement factor of a bitmap paint program, enough to know that no one will ever notice the minor modifications we have made. In Zing you can spend hours flying around

the universe looking at things from different angles. It is similarly unproductive. By planning your work session in advance—a rough side elevation of the object before creating the profile, a sketch of a preferred angle of view—you are likely to come out of the session much sooner with something you can use. Then, if you have time left over, by all means fly around the object; you may come up with something unexpected that would fit your design far better than your original thought.

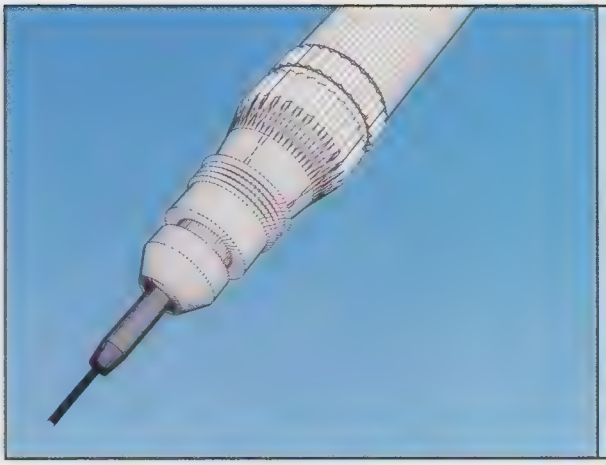
THE EXPANDING UNIVERSE

Just because the program can create Illustrator 1.1 files does not necessarily mean that embellishments should be done in a object-oriented drawing program. You could float the 3-D object above a tone scanned into the computer and then treat the object with a halftone. The three-dimensional image can also be directly imported into a paint program for integration with other, softer images. Naturally, in doing this, you lose the resolution afforded by saving as an object file. And if your wallet can afford it, you may be tempted to purchase Photo Finish—an expensive companion program to Zing produced by the same company which will not only add ray tracing to the image but will allow you to define levels of transparency to your objects as well as different types of reflectance: a metallic finish, a brushed look and so on.

FINAL POINTS Zing is by no means an all-encompassing illustration package. If you look at it as a tool used solely for generating three-dimensional objects that would be difficult to render in a your object-oriented program, it becomes less intimidating and far more useful. By evaluating its purpose before you launch the application, you are less likely to become disillusioned with its capabilities.

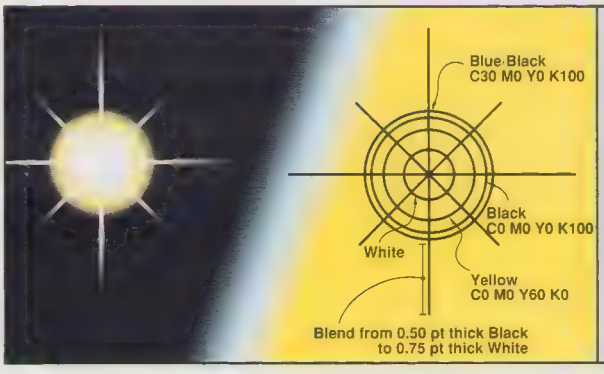
For a designer using microcomputers in the studio, the most flexible approach is to look on your software library as a series of interconnected tools; in this way, you are more likely to integrate them. By combining the product of several programs you can achieve images that are far more impressive than could be obtained in the individual applications. ■

Simon Tuckett is director of Creative Services for RoboShop Publishing Ltd., a Toronto-based electronic design studio which uses the Macintosh to produce graphic design for the advertising and creative markets.



12 To speed things up while rotating my Camera view of the universe, the object was viewed in wire frame mode. In this way the view of the object could be rotated into a variety of positions and at varying levels of perspective quickly. My goal was to produce a distorted perspective, one that would accentuate some of the details in the "flying craft."

13 The program has eight standard lighting possibilities. These can be invoked by calling up their names in the menus. In addition, one can custom light a scene with up to eight light sources. I used Custom Lighting for this illustration, arranging four different light sources of varying intensity around a sphere.



14 The stars in the background were drawn in Adobe Illustrator with three circular blends and four banks of ramped lines at a stroke width of half a point. The lines on the 45 degree angle were scaled down slightly.

15 The final illustration as it appeared before placement in the magazine proposal. The atmospheric ramp in the lower left is a two-stage blend from blue/black to blue and then to a lighter blue.

Concepting Editorial Assignments

How Mary GrandPré illustrates an article on exercise for a medical journal using gouache and pastels.

By Barbara J. Knox

Generating ideas. That's where the real work begins for St. Paul, Minn., illustrator Mary GrandPré. She calls it her "brain exercise" time, the period where she captures the essence of the "problem," the core message of the manuscript. Or, as McGraw-Hill art director Tina Adamek advises, "If an illustrator just gives me a beautiful painting that doesn't solve my problem, I am not interested. They have to dig in their heels and find the *idea* first."

Describing her drawing style as "gestural, with lots of movement and atmosphere," GrandPré strives to evoke a strong mood with all of her pieces. In the eight years she has been working with art directors at McGraw-Hill's medical publishing division, she has indeed been able to create the strong, evocative images that capture a busy doctor's attention as he flips through a medical journal. For this particular genre of illustration work, GrandPré has learned to hone in on the essence of an article, conveying both the content and spirit of various medical topics through her gouache and pastel drawings. But the work that comes before the actual drawing is what serves as the foundation for GrandPré's success.

DEADLINE AND FEES

As a case in point, she was recently asked by Adamek—who oversees four McGraw-Hill medical magazines geared toward primary care physicians—to illustrate an article titled "Exercise and Cystic Fibrosis: Freedom to Breathe" for the company's *Physician and Sports Medicine* journal.

"Tina is my favorite art director," says GrandPré, "which helps get things off to a good start. She tells me, very clearly, what the assignment is about, gives me sensible deadlines and she's always open to my ideas." Such is the basis, believes GrandPré, for a successful relationship between art director and illustrator.

For the cystic fibrosis/exercise piece, GrandPré's working time was "a very comfortable two weeks." After a preliminary phone call, Adamek sent along a copy of the article with a cover letter detailing specifics about GrandPré's fee and deadline. Fees from McGraw-Hill range from $100 for a small black-and-white piece to $1,200 for a lead color illustration; GrandPré notes that she no longer takes jobs for less than $400 to $500, and usually receives between $700 and $1,300 for her McGraw-Hill illustrations.

CONCEPTING

With article in hand, GrandPré starts her work by finding a quiet place to read the manuscript at least twice in one sitting. She goes through the article, underlining key phrases and picking out "the main slant" of the piece. (See Figure 1.) For this article on cystic fibrosis and the importance of exercise, GrandPré first gleaned an understanding of what cystic fibrosis is—a disease that affects patients' ability to maintain clear lungs—and then concentrated on equating medical terms with "regular words." Here, "lungs" became "air filter," and "mucous" became "water." Even though the article talks about lungs filling up with mucous, explains GrandPré, you don't want to show that, "so I start to think maybe I can show that effect with a water image." Underlining and circling words and phrases in the manuscript, GrandPré also starts building these word association lists on separate sheets of paper. She concentrates on finding active images; in this case, coughing, pounding, running and breaking free were focal images on her early word lists. "I also like to go to human elements," adds GrandPré, "figures that will involve the reader. For this assignment, I saw a two-sided illustration, a 'demon/saviour' image, with cystic fibrosis as the demon and exercise as the saviour." (See Figure 2.)

THUMBNAILING With the ideas at work in her mind, GrandPré moves directly from reading the manuscript and making her word lists into creating thumbnails. "I usually don't end up with the first thumbnail I do," she says, "but it launches me into the next ones." Her thumbnails are quick, very rough sketches that illustrate different aspects of the topic. Using a very soft 3B pencil on tracing paper, she tries to show both positive and negative images; in this case, the article had a positive attitude toward exercise as a benefit for cystic fibrosis patients, so GrandPré's thumbnails depict various figures breaking free of encumbrances like "stone" lungs or water-immersed bodies. (See Figure 3.)

After her initial thumbnails, GrandPré might put the work aside for a time, if her schedule allows. Otherwise, she continues, sometimes by pulling actual reference images; an anatomy book is an invaluable reference tool. "I got an actual image of lungs for this illustration," says GrandPré, "so I could see what they really look like." For figurative work, she often takes Polaroid shots of someone in the office, or sometimes simply sits in front of the mirror and draws a particular gesture or pose. "Reference isn't really that impor-

tant to me, though," adds GrandPré, "because I take a fairly free-hand approach. I use it most often to see how something works, not necessarily how to draw it."

Sometimes GrandPré also goes directly to the phone to decide on preliminary approaches with the art director. Here, however, she moved into her rough stage to develop four of her thumbnails into more concrete images.

SKETCHES On layout paper, the illustrator works quickly and sketches the main shapes with an HB pencil to rough out the idea. In an 8½ x 11 format, she avoids "getting hung up on detail," but concentrates on working out "tone and mood and light," and does not do any color studies. (See Figure 4.) "I might throw in an exaggerated perspective just to see how it's working," she adds. Then she gives weight and movement to main focal areas. She adds shadow next to develop a strong mood, before adding detail, which she says is the most time-consuming part of the rough process. "The whole process takes maybe an hour, from start to finish," says GrandPré of each rough.

Although it is unusual for GrandPré to do as many as four roughs for an assignment, she did give that many to Adamek in this instance; three of them concentrated on the lung area. (See Figure 5.) Cleaning up the edges with an eraser, GrandPré mounted the roughs on illustration board, taped and cover-sheeted them, and messengered them to Adamek's office. "Tina usually gets back to me by the end of the same day," reports GrandPré, "and lets me know what they decided on. Then I usually have anywhere from three to seven

Cystic Fibrosis Conceptualized Mary GrandPré's completed illustration was published in McGraw-Hill's *Physician and Sports Medicine* journal. The illustrator notes that it was only at the finishing stage that she added the white cloud wisps to show the passage of air through the "bronchial tube" of the bridge's broken span.

days to get a finished piece back to her."

Because the patient used as a case study in the article is a thin, young woman, GrandPré used her as a base figure for her drawings. One version shows her bound to a chair and weighted down by huge stone lungs; off on the horizon, a smaller figure of a woman who has broken out of her bonds is running, and her heavy "lungs" have fallen out. In another, the woman is trapped in a glass box full of water and she is shown lifting the lid off the box, which enables her to breathe. The rough that was eventually chosen by Adamek and the magazine's editors is what GrandPré calls her "most positive image." It shows a woman jogging on top of a bridge, part of which has broken apart. The negative space of the bridge's arches forms a lung-shape. "This piece says 'freedom to breathe' better than the others," believes GrandPré.

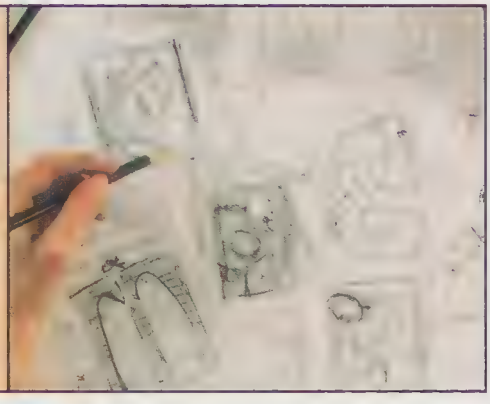
THE FINAL DRAWING

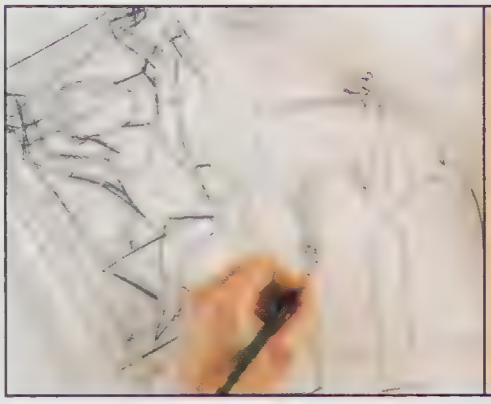
For the final drawing, GrandPré began by transferring (freehand) the image onto a medium weight hot press D'Arches watercolor paper that had been dry-mounted to illustration board and taped to leave a clean edge on the finished piece. (If the rough has a great deal of detail, GrandPré will "artograph" the rough directly onto her paper to save time.) Working at almost a 250 percent enlargement for this illustration, she drew basic shapes with a 4H pencil. Next, she outlined the pencil work in sepia gouache using a No. 0 brush. With a wet brush, she then laid in sepia and umber gouache, the predominant warm tones in the work. "I have the overall color

1 GrandPré begins her assignment by reading the manuscript on exercise and cystic fibrosis, circling key phrases as she goes. She has a copy of the layout for reference as she works.

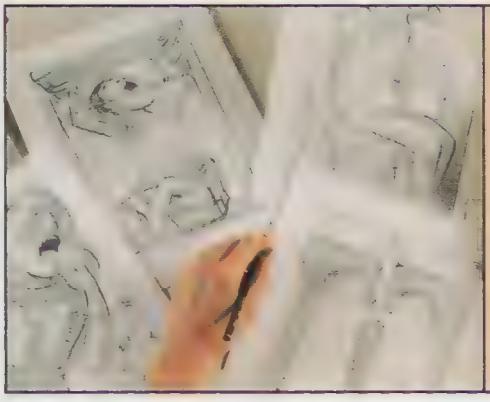
2 After reading the article, GrandPré makes lists, associating words with images. Here she equates lungs to containers, and movement with running.

3 Working with a 3B pencil on tracing paper, the artist quickly sketches thumbnails that illustrate aspects of the article. Then she works two thumbnails into more defined, yet loose formats.





4 GrandPré completes one rough showing a woman trapped inside a box of water, and another of a woman running atop a stone bridge, creating a lung-shape out of the negative space.



5 GrandPré prepares four roughs on layout paper with an HB pencil, then cleans the edges with an eraser before mounting the paper on illustration board. She sends them off to the art director.

6 She renders the final illustration on D'Arches watercolor paper dry-mounted to illustration board. She draws the basic shapes with a 4H pencil, and defines them with sepia gouache.

Photos by Mike Woodside

scheme in my head," she explains. "I know where the lights and darks are, and I always work light to dark with the watercolors, making some color choices as I go." These washes take about one to two hours to complete. (See Figure 6.)

After the initial washes are completed, GrandPré may go back with an umber or another dark color to highlight certain areas or to make figures stronger. Here, she went back to redefine the bricks of the bridge, getting back detail so that she would have a solid base to work from when she came back with her pastels. "Washes just provide a base for pastels," explains GrandPré. "If I know there's a large patch of blue, like the sky in this piece, I just wash in lots of blue. But never use paints with white pigment added," she cautions, "because they won't accept pastels. Instead, I just let the white of the illustration board come through where it's needed." She gives the piece a quick spray with fixative at this stage, before moving on to pastels. (See Figures 7 and 8.)

GrandPré chooses to work with a combination of gouache and pastel for several reasons. "When I wasn't using paint," she explains, "I found that the paper would hold only so much pastel before it would start to flake off." The gouache, reports GrandPré, allows her to put down an additional layer of color and make the overall result much brighter and more vibrant. "The combination of gouache and pastel on this paper also gives me a harder surface so I can achieve a sharper line."

GrandPré uses both NuPastels, small sticks with sharp edges which she prefers

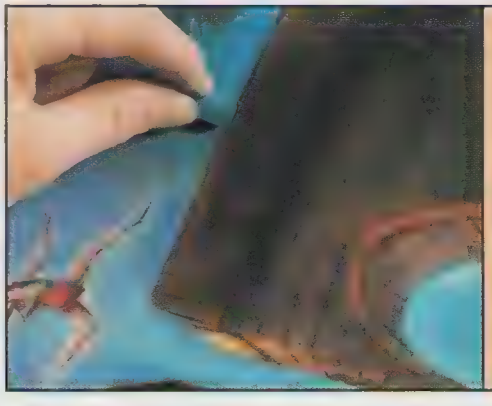
7 After laying in the warm tones, she adds cool tones and shadows to the illustration with a flat brush, always working light to dark and making color choices on paper as she works.

8 GrandPré goes back in with a small brush and a dark color to redefine the bricks and add detail lines. She says these details are critical before she begins her work with pastels.

9 Starting to lay in pastels, GrandPré works with a small piece of blue, which is the predominant color. She works from dark to light so that the lighter areas stay clean and bright.

10 The illustrator checks the piece for contrast and overall detail with a reducing lens, which allows her to see how the illustration will appear when it is reduced in the magazine's layout.

11 Before working with her lighter pastels, GrandPré dribbles Krylon fixative spray coating onto the brick area. This gives the bricks a pitted, textured feeling that adds to the overall contrast.



12 Working on the running figure of the woman, GrandPré uses a deep purple Berol Prismacolor pencil (No. 931) because it straddles both warm and cool color families and adds contrast.

ILLUSTRATION AS BRAIN EXERCISE

Illustrator Mary GrandPré traces her love of drawing back to her early childhood in Bloomington, Minn. "I've enjoyed drawing since I was five years old," recalls GrandPré, "and I started selling pastels at church bazaars when I was in the fifth grade." Now 36 years old, with numerous illustration awards to her credit, GrandPré runs her own business with partner and husband Kevin Whaley, a graphic designer. Together, the two share not just office space, but a singular devotion to their work.

GrandPré began freelancing in 1982 after attending the Minneapolis College of Art and Design and, in 1984, set up GrandPré and Whaley as a base for her illustration work. With a representative in Minnesota (Janet Virnig), GrandPré is also currently considering representation on both coasts as well; she estimates that up to 40 percent of her work is now done for national clients, while the other 60 percent is geared toward Twin Cities-based clients.

Although her work for McGraw-Hill's various medical publications has been steady over the past several years, GrandPré emphasizes that she does not specialize in medical illustration. Her work appears in corporate brochures and annual reports, as well as in trade and consumer publications. Included on that list are *Business Week*, *American Way*, *Insurance Review* and various Meredith publications. But despite her varied list of clients, GrandPré admits that it is her conceptual editorial work that she finds most satisfying.

"I love the challenge of problem-solving," explains GrandPré of her conceptual illustrations. "I like coming up with the ideas. Even though editorial work doesn't pay as well as advertising or corporate, the payoff is in the brain exercise."

GrandPré also admits that she doesn't have much of a social life, as both she and her husband are workaholics who often extend the working day well into night. As her roster of clients continues to grow, GrandPré singles out such publications as *Esquire*, the *Atlantic Monthly* and the *New York Times* as places she would love to see her work published in the future. She would also enjoy, she says, "spending more time on my own work, developing a series of drawings that deal with animal rights."

For now, with anywhere from three to eight jobs going on at once, GrandPré keeps busy juggling deadlines and diverse projects. "It is vital to keep a tight schedule," she reports, "and you have to learn how to separate one job from another." Although she may not want to, GrandPré does work on more than one illustration in a day. In that case, she takes a break by walking or cleaning up her work space, which is a comfortable and very tidy brick-walled office in a renovated St. Paul warehouse.

GrandPré Work Illustrating an article on wine futures for *Business Week*, top (A.D.: Eric Rosenberg.); for an article on wrong electrical impulses in the heart, left (A.D.: Tina Adamek); and a self-art directed piece for a printer's calender, titled "Four-Color Run," above right.

for detail work, and the round, fatter Rembrandt pastels to lay in light colors. She divides them into color groups, broken into small pieces ("I never work with a whole stick") and begins by laying in the largest area of color first, but always working dark to light to keep the lightest areas very clean. "Chalk pastels tend to blow around," she elaborates, "and I don't want the light areas to get dirty."

Because the blue of the sky is the predominant color, GrandPré began with that. "The gouache leaves a nice grain," she says, "grabbing the pastel and holding it better than plain paper would." (See Figure 9.)

She continues to emphasize crisp contrast, reinforcing lines with darker colors. "I may still make structural changes at this point," explains GrandPré. For example, she decided to keep the two middle arches of the bridge much lighter at this stage, which heightens the optical illusion of clean lungs. The arch space, too, was modified to more strongly resemble lungs, and the waterline below was altered so that it sat lower within the two central arches. "I try to keep my spontaneity while I'm doing the finished piece, " says GrandPré, "so I can make these sort of changes as I go along." (See Figure 10.)

Before moving on to her lighter pastels, GrandPré dribbles a bit of Krylon fixative over selected areas of the illustration—she covers other areas with tracing paper to protect them—to give additional texture. Here, she concentrated on the bricks of the bridge to achieve a pitted, rough texture. Then she lightly sprayed the whole piece for the last time. (See Figure 11.)

For very detailed line work, she uses colored pencils, sharpened to a very fine point. In this case, she worked with a deep purple (Prismacolor) to heighten contrast and make the running figure pop a bit more. A yellow-orange pencil was used to throw light along the edges of the bridge. After "sparking up" the overall image with touches of reds and oranges to areas that are catching the light, GrandPré finally went in with a white charcoal pencil to define water foam and the wisps of clouds that seem to swirl through the opening in the bridge's broken span. (See Figures 12 through 14.)

Both the sky and the water areas were created freehand, without reference. GrandPré believes it is her careful choice of a light source that gives her an edge in achieving this distinctive vibrance. She placed the light source close to the horizon line so that it would add emphasis to the water level. The artist estimates that she spent between three and five hours completing the sky and water fields in the illustration; both areas are comprised of two washes—one light, one dark—and three layers of pastel. (See Figures 15 and 16.) "Pastels are quick, immediate, vibrant and there's no drying time," says GrandPré. "They do get messy, but they allow a lot of direct contact with the paper. I like that."

So, it appears, does Tina Adamek, who says GrandPré's work is a favorite among the McGraw-Hill editors. "Everyone likes her work. When I hire an illustrator," concludes Adamek, "I'm hiring overall talent, not just a brush stroke. We need their thinking. And that's what Mary gives us." ■

Barbara J. Knox is a Minneapolis-based freelance writer.

13 The illustrator uses a bright yellow-orange pencil to throw light along the edge of brick arches; to avoid smudging the rest of the illustration, she rests her hand on a scrap of tracing paper.

15 She lays in the more intense colors, mostly mid-range hues, with Nu-Pastel sticks, which allow her to work close to another color with a very clean line.

14 GrandPré works with a white charcoal pencil in the final stage of the drawing to define foam within the breaking water.

16 Light colors are laid in with a Rembrandt cream-colored pastel stick, which GrandPré uses here to create free-form cloud shapes. She keeps the horizon line very light.

The Growing Business of 3-D Illustration

No longer the poor cousin of the art school sculpture department, dimensional illustration is winning new respect among art directors.

By John Newcomb

"Look around you," said one illustrator, hugging her portfolio to her. "This is the largest collection of starving artists in the world." The occasion was an open house portfolio showing in Margaret Cusack's Brooklyn brownstone in the fall of 1983. Some three dozen artists were nervously munching cheese and crackers as a handful of client art directors paged through their portfolios.

The illustration specialty known as dimensional illustration has come a long way since those first potluck supper support group gatherings. Cusack along with Ellen Rixford, the main movers of this far-flung dimensional illustrators group, now compare notes with more than 400 artists in the United States and Canada to track markets and combine work for several shows a year in such prestigious settings as the New York Art Directors' Club gallery in Manhattan. (See more of Rixford's work in Vol. 4, No. 7 of *Step-By-Step Graphics.*) Today, many more professional illustrators are doing this type of impact graphics and the torrent of work shows a new vitality. Aesthetic standards are very high and several strong individual styles have emerged.

Dimensional illustration as a major avenue of study is growing explosively in the country's top art schools also. Richard Wilde, chairman of the graphic design and

advertising departments at New York's busy School of Visual Arts reports a sea change in student interest. "Four years ago eight students were enrolled in the first class dedicated to this type of training," says Wilde. "This year we're running three classes with 80 students, most of whom say they want to do this type of illustration full-time when they graduate. It's the hottest thing in the whole curriculum."

Kevin O'Callaghan, SVA's 3-D class instructor agrees: "These kids are sophisticated and determined." O'Callaghan's senior class recently helped him complete a complicated problem for a Con Edison ad that ran in *Engineering News-Record* magazine; it shows a series of six large apples treated as buildings—the construction progresses from an I-beam framework on the first apple to heating and ventilating ducts within the third apple to the final stage with red sheathing, windows and doors in place. "I wanted to get them thinking about real problems and real schedules, to get a genuine feel for working with clients before they graduate," says O'Callaghan.

Bob Selby, an instructor on the illustration faculty at the Rhode Island School of Design, reports a surge of interest in dimensional work by both the school and by students; enrollment in his classes totals 40 serious modelmakers. "A few years ago

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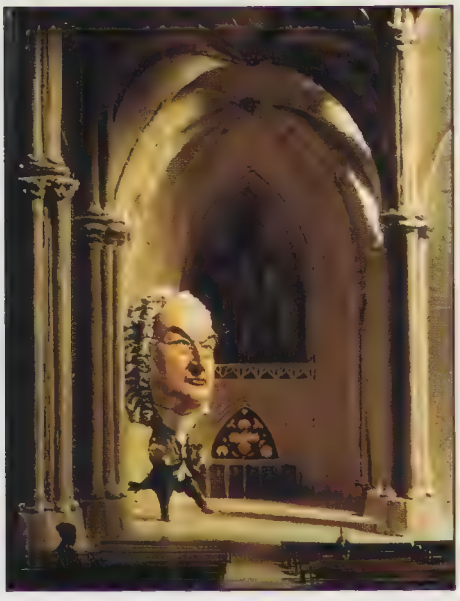
Hybrid Fruit (At far left) AT&T's new house organ used this symbol of mixed standards. (Illustrator: Tina Chaden; A.D. Steve Phillips; Photographer: David Arky.)

Crowd Scene (Near left above) Egyptian fruit bats clamor on the cover of a novel about vampires. (Illustrator: Nancy Blauers; A.D. Stephen Diamond; Photographer: Maurice Sherman.)

Bedfellows (At left below) Man and machine cohabitate in this felt relief, the illustration for one of a series of articles discussing professionals who use computers. (Illustrator: Ray Ameijide, A.D. Barbara Groenteman; Photographer: Stephen Munz.)

Composerfest (Below) Two of a series created for a Boston publisher's gift calendar show genius musicians at work. (Illustrator: Mark Steele; Photographer: Ken Clark.)
A Show of Hands (At right above) The client for this piece is a manufacturer of chemicals used in finishing fabrics. (Illustrator: Ellen Rixford; A.D. Greg Cordell.)
Pocket Office (At right below) This workstation in a briefcase shows the growing flexibility of lap computers. (Illustrator: James Nazz; A.D. Jerry Tortorella.)

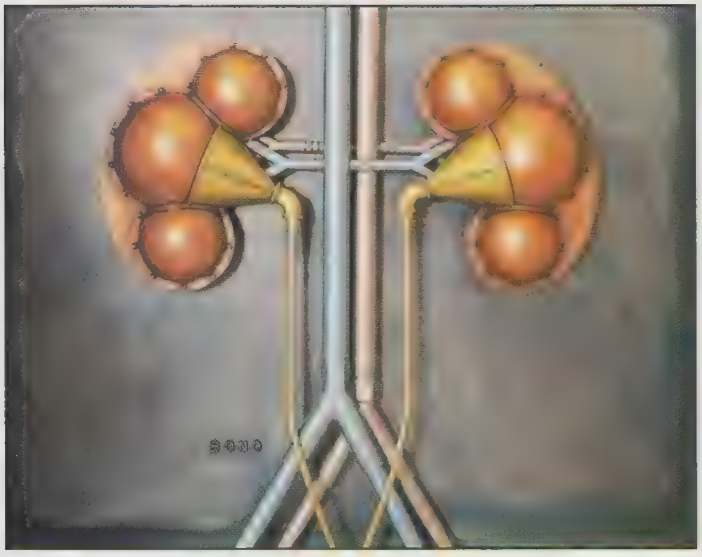


Rich Food (Below, at top left) This hamburger made of money was created to attract investors for a chain of fast food restaurants. (Illustrator: Anne Whiting; A.D. Belinda Crosby; Photographer: Edward Owens.)

Pinned (Below, at right top) A surgeon finds himself trapped by crushing expenses. (Illustrator: Gordon Swenarton; A.D. William Kuhn; Photographer: Stephen Munz.)

The Distillery (Below, at left) Human kidneys become a metal still for the cover of a medical journal. (Illustrator: Mary Bono; A.D. Frank Schmitz.)

The Jungle (Below, at right) Wading through an increasingly dense tangle of tax forms is a problem most businessmen face. (Illustrator: Richard McNeel; A.D. Roger Dowd.)



an illustration student would shuffle up after hearing the assignment and ask apologetically if he could do his solution as a free-standing piece," says Selby. "As Dylan sang, the times they are a-changing."

WHY THE BOOM?

First of all, Will Vinton's claymation creations have filled the television screen with banjo-plucking raisins and pizza-busting demons, and animated movies such as "Gremlins" or Frank Oz's "The Dark Crystal" have drawn new interest in animation with sculpture. The artform has gained visibility and acceptance with the viewing public. In accordance with the laws of supply and demand, more illustration students are seeing dimensional design as an attractive, viable way to make a living. In the professional art world, more such jobs are being assigned and produced as more art directors become used to visualizing and handling them.

THE CHANGING MARKET

According to Joan Steiner, a dimensional artist who cracked the agency market very early with her view of the New York Marathon, a five-foot-long mockup of Manhattan and Brooklyn which ran as a special insert to the *New York Times*, art directors are losing their fear of the style. Steiner says that often publishing or agency art people were discomfited by the difference between the two-dimensional rough sketch and the three-dimensional piece of finished art. "They either had trouble seeing what they would eventually get or they found the sketch disappointing," she says. Now that more designers are using the style, there seems to be less anxiety about end results. (See Vol. 5, No. 4 for a *Step-By-Step* story on more of Steiner's work.)

In fact, many art directors enjoy a more

Bad Dreams The assignment from *Homemakers* magazine was to represent "kids and fears." (Illustrator: Jackie Snider; A.D. Georges Haroutiun; Photographer: Tom McCrae.)

Rag Dreams A young couple shops for that all-important first home. (Illustration: Margaret Cusack; A.D. Debora Clark; Photographer: Ron Breland.)

active role in the realization of finished film. "I really like manipulating mood with lighting and point of view," says Roger Dowd, art director of *Medical Economics* magazine. "Lighting alone offers several choices of creative impression and, of course, you can shoot several angles to allow subsidiary details that can be used with quotes or charts inside the story." Dowd also points to the dramatic impact of 3-D art: "No matter how outlandish the model may be, a printed photograph of it carries its own reality—the solid object exists. It pushes off the page and into the reader's face," he says. "The more you use it the more fun you have."

DOUBLE CREATIVE FEE A BARRIER?

Dimensional illustration is expensive; many jobs incur a double creative fee—one for the artist and one for the photographer who must furnish final film to the art director. However, this is less of a barrier than it used to be. Many dimensional artists cut the total cost by shooting their own models or by working out an extremely modest "buddy fee" with a photographer friend (in such arrangements the photo fee is a fraction of the normal rates recommended by the American Association of Magazine Photographers) so that the total cost to a client is only slightly higher than that paid for equivalent jobs using two-dimensional art. Help is sometimes available on the other end of the transaction, too; large publishers such

WHO'S BUYING DIMENSIONAL ART?

The following is a partial list of confirmed clients, publications and companies that regularly use dimensional illustration. It should be mentioned that many book and magazine publishers operate promotion design departments that are physically and philosophically separate from their editorial sections. It is usually worthwhile making a special sales approach to these art directors.

MAGAZINES

- *Games*, PSC Publications, 810 7th Ave., New York, NY 10019; (212) 246- 4640.
- *Changing Times*, Christopher Sloan, A.D.; 1729 H St., N.W., Washington, DC 20006; (202) 887-6400.
- *Datamation*, Chris Lewis, A.D.; 275 Washington, Newton, MA 02158; (617) 964-3030.
- *Business Week*, Malcolm Froumann, A.D.; 1221 Avenue of the Americas, New York, NY 10020; (212) 997-1221.
- *Newsweek*, Peter Plagens, A.D.; 444 Madison Ave., New York, NY 10022; (212) 350-4000.
- *Fortune*, Margery Peters, A.D.; 1271 Avenue of the Americas, New York, NY 10020; (212) 522-1212.
- *Forbes*, Everett Halverson, A.D.; 60 Fifth Ave., New York, NY 10011; (212) 620-2200.
- *Lear's*, Jeanne Arnold, A.D.; 505 Park Ave., 19th Floor, New York, NY 10022; (212) 888-0007.
- *New York*, Syndi Decker, A.D.; 755 Second Ave., New York, NY 10017; (212) 880-0700.
- *Texas Monthly*, D.J. Stout, A.D.; Suite 1600, 701 Brazos, Austin, TX 78701; (512) 476-7085.
- *Connecticut*, Joan Barrow, A.D.; 789 Reservoir, Bridgeport, CT 06606; (203) 374-5488.
- *Institutional Investor*, Chel Dong, A.D.; 488 Madison Ave., 12th Floor, New York, NY 10022; (212) 303-3300.
- *PC Magazine*, Gerald Kunkel, A.D.; One Park Ave., New York, NY 10016; (212) 503-5255.
- *Golf Digest*, Nick Di Dio, A.D.; New York Times Magazine Group, 5520 Park Ave., Trumball, CT 06611; (203) 373-7000.
- *Golf World*, Nick Di Dio, A.D.; New York Times Magazine Group, 5520 Park Ave., Trumball, CT 06611; (203) 373-7000.
- *Audio Magazine*, Diamandis Communications Inc., 1515 Broadway, New York, NY 10036; (212) 719-6677.
- *Nursing 90*, Edward Rosanio, Director; 1111 Bethlehem Pike, Spring House, PA 19477; (215) 646-8700.
- *Resident and Staff Physician*, Ann Matarella or Frank Metz, A.D.; Romaine Pierson Publishers Inc., 80 Shore Road, Port Washington, NY 11050; (516) 883-6350.
- *Medical Economics*, Roger Dowd, A.D.; 680 Kinderkamack Road, Oradell, NJ 07649; (201) 262-3030. (After 1/1/91: 5 Paragon Drive, Montvale, NJ 07645.)
- *Medical Laboratory Observer*, Kathleen Cuddihy, A.D.; *see Medical Economics entry for address.*
- *Drug Topics*, Tom Darnsteadt, A.D.; *see Medical Economics entry for address.*
- *RN Magazine*, Andrea DiBenedetto, A. D.; *see Medical Economics entry for address.*

PUBLISHING COMPANIES

- McGraw-Hill Inc., 1221 Avenue of the Americas, New York, NY 10020; (212) 512-2000.
- Prentice Hall Inc., Route 9 West, Englewood Cliffs, NJ 07632; (201) 592- 2000.
- Workman Publishing Co., 708 Broadway, New York, NY 10003; (212) 254-5900.
- Romaine Pierson Publishers, 80 Shore Road, Port Washington, NY 11050; (516) 883-6350.
- Rodale Press Inc., 33 E. Minor St., Emmaus, PA 18098; (215) 967-5171.
- Medical Economics Co., Inc., Roger Dowd, A.D.; 680 Kinderkamack Road, Oradell, NJ 07649; (201) 262-3030. (After 1/1/91: 5 Paragon Drive, Montvale, NJ 07645.)

ADVERTISING AGENCIES

- Leo Burnett Co., 130 E, Randolf St., Chicago, IL 60601; (312) 565-5959.
- Saatchi & Saatchi, 375 Hudson St., New York, NY 10014; (212) 463-2000; or 15 Lower Regent St., London, England, SW1 Y4L; (01) 636-5060.
- Chiat/Day/Mojo, 517 S. Olive St., Los Angeles, CA 90013; (213) 622-7454.
- Ogilvy & Mather, 520 N. Michigan Ave., 17th Floor, Chicago, IL 60611; (312) 836-1700.

as McGraw-Hill, volume publishers of special interest magazines, and Rodale Press, producers of hobby and sport magazines, have their own extensive photographic service departments—studios and staff photographers with which to shoot film at inhouse cost.

SELLING 3-D ART

Though the demand for dimensional illustration has grown, most working illustrators agree that personal selling is essential. Richard McNeel's experience is typical. A few years ago he signed an agreement to be represented by a large, prestigious design studio in New York. The arrangement, according to McNeel, "was disastrous." In desperation, he drafted his wife Marcia to help make personal sales calls; now the artist is happily swamped with work most of the time.

Rixford, whose husband visits her clients, emphasizes the personal part of one-on-one selling. "We keep files on our customers. At each contact we're able to ask an art director about her sick mother or asthma problem—some little tidbit that proves we see her as a human being, that we're not just taking tickets on a bus."

"A rep is a barrier between you and the client," says one New York-based illustrator. "A rep may be very enthused at first, very eager to show your samples to his or her favorite contacts. Usually, however, interest tapers off quickly if the first showing doesn't score a job. Agents put their faith in volume sales and most of them seem not to see a lot of money in 'novelty styles,' as they often call dimensional work."

Illustrator James Nazz has another complaint: "I found that agents tend to describe me as a 'modelmaker' to clients. This is just not accurate—I'm an artist, not simply a pair of hands hired to give form to the art director's idea. I quickly found that my rep's agency customers pigeonholed me as a prop producer and gave most of the money for each assignment to the photographer who shot my piece of sculpture." (See Vol. 6, No. 5 for more of Nazz's work.)

Some illustrators also feel that agents who handle delivery of the fragile pieces of art have a distaste for the work and care involved; each job has to be painstakingly packed for safe arrival to the photographer's studio and, of course, cannot be delivered by mail or parcel service.

Whatever the combinations of reasons, most artists prefer selling their own work. The consensus is, "It's more productive and more interesting; it's even worth the time it pulls you away from the studio."

It seems clear that years of persistence and dedication by the pioneers of dimensional illustration are beginning to pay off. A new age is dawning and all stand to benefit from the boom—artists, art schools, clients and viewers. More work and better jobs. At least, dimensional illustrators are eating regularly these days. ■

John Newcomb is design director of the Medical Economics Company and is author of "The Book of Graphic Problem Solving."

Disaster A solo-practice physician takes cover before an approaching financial storm. (Illustrator: Joan Steiner; A.D. Roger Dowd; Photographer: Walter Wick.)

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Circle 22 on Information Card

Futura: Form Follows Function

Nearly 70 years old, Futura is a fresh, ubiquitous offshoot of the Bauhaus—sort of.

By Allan Haley

Some things just naturally go together: hot summer nights and rag-top cars, children's drawings and refrigerator doors, the Futura typeface and the Bauhaus School of Design. Then there are those things that seemingly ought to go together, but don't: cold beer and an aerobic workout, old houses and leisure time, Futura and the Bauhaus School of Design.

ATTRIBUTES

There are three kinds of sans serif types: those that look like they were constructed with the aid of compass and straightedge, those that are patterned after the character shapes and proportions on old Roman monuments, and those that fall somewhere between these two.

Futura is considered by most to be typical of the first style, since at first glance it appears to be constructed out of strict geometric shapes. Even with a second look, this typeface seems to have absolutely consistent stroke weights, curved shapes made from perfect circles, and angles constructed with the accuracy of a protractor. It is only after careful study that the true proportions of Futura are revealed.

First, as monotone as they may appear, the stroke weights of Futura do vary—a lot. The most obvious place is where curved strokes join a stem. Here, the designer tapered the strokes slightly, so that the intersection does not look too heavy. Diagonals are lighter in weight than vertical strokes, and horizontal strokes are lighter still. In addition, the inside diagonals of the "W" are lighter than the outside diagonals. If you look real hard, you will discover that the top and bottom parts of the "O" are lighter than the sides—and that the top is just the slightest bit lighter than the bottom.

Second, the curves are not strictly geometric circles. Most are, in fact, somewhat condensed from a true round shape. Draw a perfect square around Futura's "O" and you will see that its sides do not quite touch the outside edges of the square.

In addition, characters like the "G," "H," "R" and "P," which you would expect to be horizontally symmetrical in a geometric design, are actually somewhat high-waisted.

FUTURA, THE SANS SERIF OLDSTYLE In fact, not only is Futura not purely geometric in construction, it even displays some pretty blatant Roman oldstyle design characteristics. Its capitals are shorter than the lowercase ascenders, character widths are very close to oldstyle proportions, and even the lowercase "t" is asymmetrical in design—like those in oldstyle typefaces.

If you want to see really geometric types, look at faces like Horatio or ITC Avant Garde Gothic®. These make Futura appear positively freeform.

Futura's x-height is on the modest side, again in keeping with oldstyle proportions. This trait helps to offset some of the optically even qualities of the design and improve readability a little. Our eyes apparently tire easily when reading monotone types, but Futura's rather small x-height and full-bodied ascenders help to replace some of the needed "interest" to what might otherwise be visually tedious blocks of text copy.

Individual letterforms in Futura tend to be distillations of the most basic character shapes. Anything that is not absolutely necessary for defining these shapes has been eliminated. There are no two-storied "a's," or bowl and loop "g's" here, no second stroke continuations on lowercase "u's," or hooks on lowercase "j's." Futura was designed the way Detroit used to build cars—with no frills in the standard equipment. In fact, the original renderings for Futura were even more austere than its released version. The "r" was just a vertical stroke with a simple ball to represent the hook, and the "m" was three vertical strokes connected by one long horizontal at the top.

DISTINCTION WITHOUT OSTENTATION While Futura is no strutting peacock of a typeface, neither is it a timid design lacking in distinguishing features. Futura has personality and distinction; it just doesn't have flamboyance. Starting with the "a," many letters distinguish this design. The first letter in the Futura alphabet looks like the kind we were taught to draw in grammar school. The lowercase "u" shares the capital's design, and the "i" and "j" have round dots. (This last trait may not seem very distinctive, but most sans serif faces have square dots over these characters.) Both the cap and lowercase "c" have terminals which are dipped on a vertical axis. (Again, most sans serifs are different in that their terminals are clipped horizontally.)

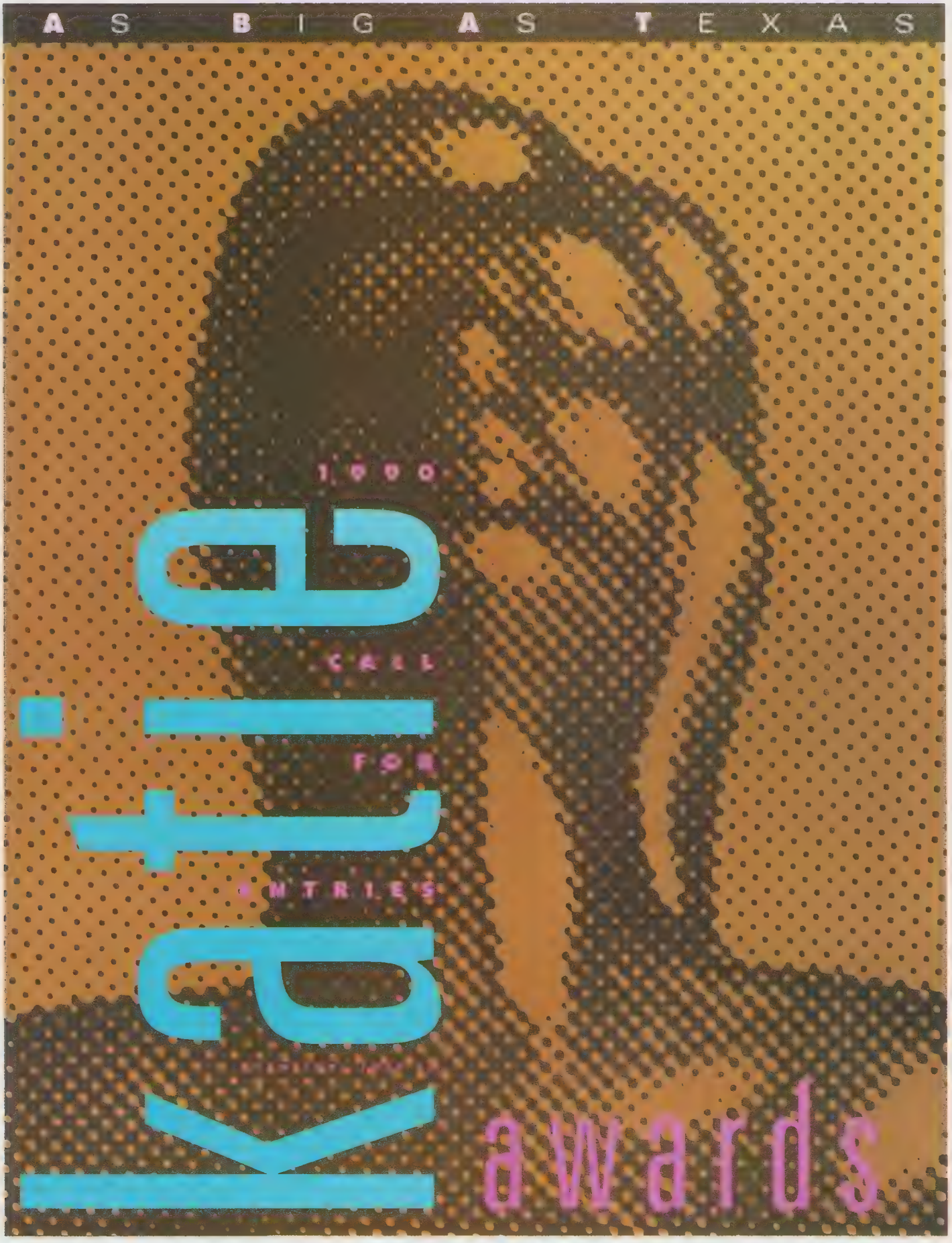
In the capitals, the "M" is splayed, the "Q" has a (minimalistic) short tail, and the "P," "R," and "T," are of condensed proportions. In the Light, Book and Medium versions of the design, the apices of letters such as the "A" and "M" are pointed. In the heavier weights, however, they are square-cut.

Finally, like most sans serif faces, the italic variants of Futura are merely obliqued designs rather than cursive letter shapes. But don't let this fool you into thinking that electronically slanted roman letters will be adequate substitutes for the true "italic" designs. Futura Italic may simply look slanted, but just as much time, care and expertise went into creating these subtly drawn characters as went into the deceptively simple roman letters—maybe more.

BACKGROUND

Typographic myth: The Futura typeface was developed at the Bauhaus, and is the

A Fun Face Jan Wilson, who designed the KATIE Awards Poster at right, summarizes why Futura continues to be popular well into its seventh decade. "Futura is a blast to design with. It's a face with a great past and everlasting future."


AS BIG AS TEXAS
1990
call
for
entries
kafu
awards

embodiment of that school's teaching.

Typographic fact: Futura was not conceived at the Bauhaus. In fact, Paul Renner, Futura's originator, had no Bauhaus affiliation. In many ways, Futura runs counter to Bauhaus teaching and was rarely used by Bauhaus designers.

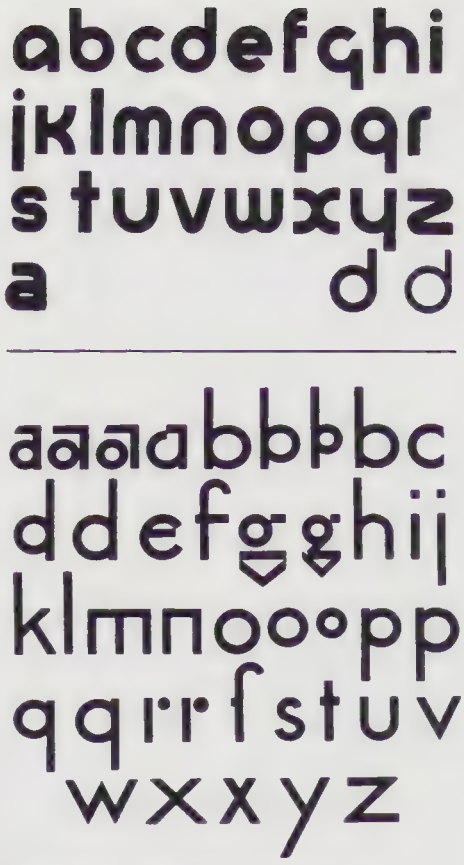
SANS SERIFS VS. SQUARE SERIFS The first sans serif type was introduced in England early in the 19th century. The initial design didn't meet with immediate popularity for several reasons. First, British designers and typographers of the time couldn't warm up to this sterile and, to their eye, rather peculiar design. (Which is probably why, to this day, British refer to sans serif faces as "grotesques.") The second reason is that, at about this same time square serif typefaces made their debut—and this style became the "hot" face to use. Typefounders thus turned their attention to creating and selling a known commodity, thus stunting the early development of sans serif types.

By the mid-1850s the popularity of square serif designs had mellowed sufficiently to allow room for another new design to be added to the typographic spectrum—and sans serifs got their second chance. This time they were much more successful, and actually rivaled square serifs for top typographic honors. Nineteenth century grotesques remained popular for over 40 years, but by the late 1800s, were beginning to be overshadowed by the very fancy Victorian types. Victorian types were then replaced by art nouveau types, and typographic trendsetters left sans serifs to lowly applications where fashion was not a primary design concern.

By the early 1900s, typography had become (especially in Germany) an overly fancy, self-conscious and downright ugly art form. Style became more important than message, and clutter seemed to have become a typographic tool.

BAUHAUS AESTHETICS But some young designers rejected the design status quo and looked for a simpler, more rational style. The more gifted (and determined) of these designers in Germany migrated to the Bauhaus.

In 1919, the Bauhaus school, under the direction of architect Walter Gropius, brought to fruition many of the new theories; "form follows function" became the rallying cry of this new group of designers. The clear affinity between sans serif lettering and the architecture of Gropius was obvious. In 1925 Herbert Bayer was appointed Master in charge of typography at the Bauhaus.



Forerunners Herbert Bayer's experimental typeface, completed in 1926 (top), and Paul Renner's original concept of Futura (below), both reveal an influence of the Bauhaus.

Bayer was deeply concerned with the need for simplicity and legibility in typographic arrangement. He rejected serifs and capital letters as holdovers from an outdated and inefficient form of communication. With more idealism than hard proof, Bayer argued that letterforms based on geometric elements produced a more legible and harmonious design.

The result of this logic was Bayer's Universal Type: a lowercase-only alphabet based on geometric design elements. Unfortunately, it was Bayer's rigid adherence to geometry and mathematical precision that makes the design look contrived, illegible, and difficult to read.

TYPOGRAPHIC PIONEER While Bayer's design was, in itself, not successful, it did blaze a design trail for others to follow. The first type to emerge from this philosophy was a design by Jakob Erbar. Produced in 1926, this typeface should be recognized as the initiator of a new sans serif based on geometric rather than Roman monumental letterforms; but it was followed closely by another design, Futura. It was Futura that ultimately captured the imagination of German typographers and designers.

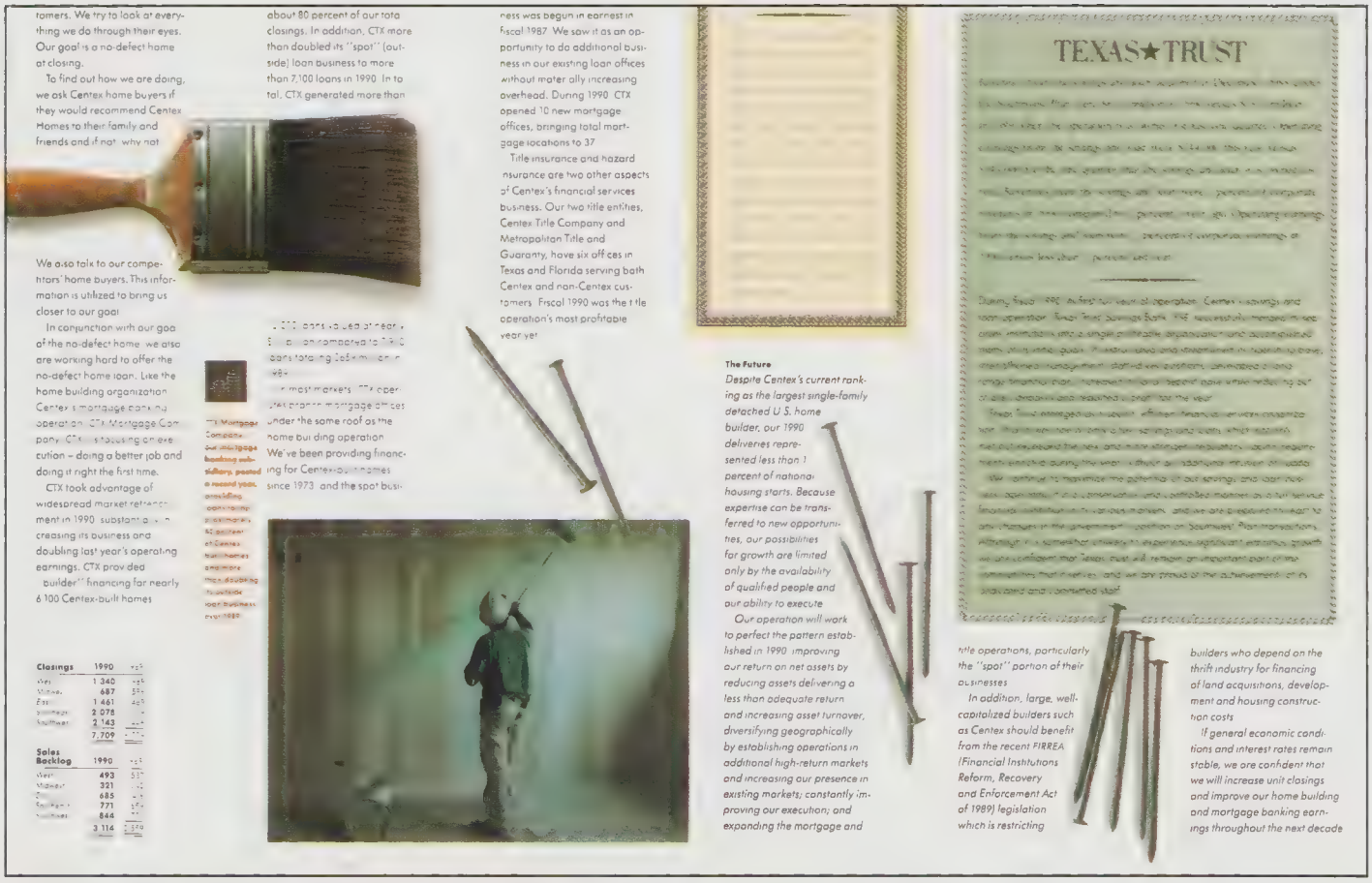
Futura was drawn by Paul Renner, a graphic designer and teacher. As first created, it clearly embodied all the ideologies of Bayer and the Bauhaus movement. While it did have capitals patterned after Roman character shapes and proportions, the lowercase of Futura, as Renner originally intended it, was a design experiment that took the "form follows function" philosophy to extremes. The end result was a set of characters which may have reflected Bauhaus teaching, but were typographically valueless.

Renner submitted his new design to the Bauer Typefoundry of Frankfurt, which accepted the work—with the stipulation that its staff designers could make a "few" modifications to the face. Bauer's designers left Renner's caps pretty much untouched, but felt obliged to spend a considerable amount of time on the lowercase. Here, they did an exemplary job of melding Renner's philosophy with proven typeface design precepts. The result was an immediate and overwhelming success.

FUTURA TRAVELS TO AMERICA This success was repeated in the United States—except that it was under names other than Futura. Airport was the first Futura lookalike to be released in the U.S. The Baltimore Type Foundry, the company responsible for releasing the design, claimed that their face was cut from original Futura drawings. Less prejudiced typographic sources, however, contend that Airport was copied from the imported Bauer fonts.

Airport was the first, but a face jointly designed and offered by American Type Founders and the Linotype company became the functional equivalent of Futura in the United States for many years. Even today, Spartan, the name chosen for the face, is still available for Linotype typesetting equipment. Spartan was claimed to have been redrawn from various European sources, with some improvements over Futura incorporated into the final design. Truth is, the design is almost indistinguishable from Futura.

Until recently, the Futura design was available under as many different names as Helvetica is today—and for the same reasons. It was very popular—and very



Centex Annual Report Designer Bryan Peterson combined Futura with Perpetua and Moderna in this 1990 annual report. "Futura contrasted well with Perpetua, which is soft by nature, providing a visual separation," he says, adding, "Futura worked especially well with the outlined photos and random nature of the design because its simplicity served to uncomplicate the design."

unavailable from its original source. As a result, type suppliers were forced to create their own versions of Futura, and designers had to determine the merits of a variety of similar, but not quite identical designs. Now, thanks to the willingness of type foundries to cross-license, and the ubiquity of Postscript fonts, Futura is available to just about everybody, and can be imaged on virtually any kind of typesetting equipment.

CONSIDERATIONS FOR USE

Don't use Futura for an application in which the goal is easy reading of lengthy continuous text. Futura is never going to compete with the likes of Century Schoolbook and Times Roman. Its relatively short x-height, optically monotone weight, and lack of serifs all to varying degrees make Futura a highly unlikely candidate for "Readability Face of The Year."

Now—with this out of the way—Futura does have some wonderful qualities as a communication tool. It is an exceptional display face. Its bold and condensed variants are especially strong display designs. Futura is also a good choice for space-sensitive applications. Here, its simple letterforms allow it to be set at surprisingly small sizes with little drop in legibility levels. Again, the condensed variants prove to be valuable graphic tools. Futura even works well for short blocks of text copy (like captions and pull-quotes in publications). It's just that in anything over about 12 or 14 lines of copy, Futura's design traits begin to become detriments rather than design assets. A little additional line space seems to help when setting multiple lines of Futura, but generally it is not a great text face.

WHITE SPACE Futura likes white space. It likes relatively open letterspacing, generous line space, and nice wide margins. The only place you want to scrimp on white space is between words.

Futura has open counters and somewhat wide character proportions. These produce a relatively light typographic color which overly tight letterspacing easily disrupts. Futura should normally be spaced as it comes, which means slightly more open than faces like ITC Franklin Gothic®, News Gothic or Helvetica.

Because of its tall ascenders, Futura has built-in line space that tends to the open side of the scale, which is good. And sometimes a little more "air" is even better. Open line space makes blocks of Futura inviting and readable, and it enhances the already elegant quality of the design.

Margins which are generous with white space also enhance the Futura design, improving both its readability, and its ability to encourage readership.

Between words is where you want to be stingy with white space. Because Futura doesn't have the benefit of serifs to aid the

reader, and because its geometric shapes allow for minimal character contact with the baseline, Futura lacks the strong horizontal stress necessary for easy reading. Tight, even word spacing, however, helps to counteract this and improves Futura's underdeveloped readability strengths.

BIG AND VERSATILE Futura is a sufficiently large family of type (over 20 different variants are available) that can easily satisfy the most demanding needs. It ranks up there with Helvetica and Univers for family versatility.

Should you want to combine Futura with a different typestyle, it is also agreeable to a wide variety of combinations. However, it should not be mixed with other geometric sans. In addition, combinations with slab serif types are almost as bad as with a geometric sans, and when used with other typefaces that have a small x-height, the results are less than satisfying. So avoid mixing Futura with ITC Avant Garde Gothic®, Avenir®, Stymie, Berhard Modern and Nicholas Cochin, and you'll be just fine.

Futura does combine beautifully with soft, warm, oldstyles like Kennerley and ITC Clearface®; and moderns like Bauer Bodoni or ITC Fenice®. These designs provide the counterpoint to Futura's seemingly monotone strokes and optically geometric character shapes.

Futura Light is a delicate design, and arguably the most elegant of the series. But it does have to be handled with care. (This is not a weight to withstand reversing, surprinting, or 300 dpi imaging with much success.) The Book weight falls between the Light and Medium; and as the name implies, this is the variant intended for most text printing. It's not as delicate as the light, or quite as heavy as the Medium.

The Medium weight is also a good text design, but it tends to look a little dark—especially in smaller sizes. As the weights increase from the Medium, Futura begins to loose what there is of its text setting strengths. The good news is, however, that these are replaced by strong and beneficial display type virtues.

SPACE SAVERS The condensed members of the family are exceptionally legible and can provide dependable service as an alternative to the more common faces (read "Helvetica") used for applications where space is at a premium. The numbers in Futura Condensed are especially legible.

Finally, when ordering Futura, be aware that most traditional graphic arts equipment and font suppliers have, at one time or another, developed their own version of this typestyle. Some are better than others. Do a little shopping before you order—especially if it's a big order.

Futura is a versatile and enduring design that is as popular now as it was when virtually every foundry was forced to offer a version of the style. Look around, you'll see lots of good uses of Futura. Some things just naturally go together. ■

Futura Light
ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz
(.,:;''*?¿!¡)%¢$1234567890

Futura Regular Oblique
ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz
(.,:;''?¿!¡)%¢$1234567890*

Futura Heavy
ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz
(.,:;''*?¿!¡)%¢$1234567890

Futura Bold
ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz
(.,:;''*?¿!¡)%¢$1234567890

Futura Condensed Bold Oblique
ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz
(.,:;''*?¿!¡)%¢$1234567890

Futura Extra Bold
ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz
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Type samples courtesy of Linotype Corp.

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Collecting the Professional Way—Part II

Your freelancing venture will not last long without an effective accounts receivable and collection system.

By Cameron S. Foote

When considering how much to charge for your services, you should also consider the very-much-related subject of collecting. In the last issue of *Step-By-Step Graphics*, we covered the first half of being professional in your collection practices—how to establish payment terms, the necessity of putting them in writing, and how to handle objections. This time we will cover the second half—what accounts receivable levels are acceptable for small creative businesses, and how to go about establishing an effective collection procedure for slow-paying clients.

DETERMINING YOUR ACCOUNTS RECEIVABLE BALANCE

Your accounts receivable balance is the total dollar amount of the invoices you have outstanding. In other words, completed, billed work for which you have not yet been paid. This figure, and the age of the invoices that comprise it, are important indicators of just how successful your collection practices, and indeed, your overall business, really are. Given the diversity of the graphic design/illustration business, it is harder to generalize than it is for other small firms. But there are two benchmarks to consider in comparing how well you are doing.

THE ONE MONTH AVERAGE BALANCE It is in your interest to have a moderate amount of money owed to you; think of it as money in the bank. If your accounts receivable balance is too small, you have little or no cushion against the inevitable ups and downs of the business. On the other hand, if the balance is too big, you have too much of your money tied up in a non-productive way.

So what is an appropriate accounts receivable balance for you? Successful self-employed creatives and small design shops report that the right figure is about one month's gross income. Freelancers just getting started should expect to carry a balance on the low side of the average, those who have more experience or who run larger graphics organizations should expect to carry a balance of the high side of the average, up to a month and one-half or two month's income.

THE 45-DAY COLLECTION AVERAGE To get a feel for how well your collection practices are working and how well you manage cash flow, look at how long it takes, on average, from the time you send an invoice until you receive a check.

If your accounts receivable collections average around 45 days, you are doing fine; there is no need for a major change. If, however, your collection average is approximately 60 days, you should be concerned. If it is between 60 to 90 days, you have a serious problem. And if it is over 90 days, financial disaster is just over the horizon.

Although there is no way to be sure, my experience in talking to creatives around the country is that many (most?) exist in the accounts receivable danger zone. Indeed, I would venture that the cost—both financial and psychological—of carrying large accounts receivable balances is one of the leading causes for the failure of small creative businesses.

KEEP IT PROFESSIONAL

Few things are more frustrating or ultimately more costly than chasing after money that is legitimately owed you. Nonetheless, it is an everyday business

(Continued on page 126)

Illustrations by Matt Wawiorka

CALL FOR COLOR ENTRIES

STEP-BY-STEP GRAPHICS

ANNUAL COVER COMPETITION

DEADLINE NOVEMBER 1 1990

DESIGN PROBLEM To create an original cover for our 1991 Annual, titled *Designer's Guide to Using Color*. The design should address the color theme, and you may use any method or combination of methods to solve the problem. **SIZE, COLOR, FORMAT CONSIDERATIONS** Proportion your artwork to our vertical cover format. (Full bleed: 8⅝ x 11⅛-inches.) Entries must be rendered in color; callouts on b/w mechanicals will not be accepted. Take the title of the Annual, our logo and cover type into consideration but do not include them in your artwork (unless the title is integral to your solution; then only include the words "Designer's Guide to Using Color.") Submit 6 identical 35mm slides of each entry; no original artwork accepted. Label slide mounts with your name and phone number. Winner and runners-up must supply original artwork upon publication. **DEADLINE** Each entry must include the entry form below, and all entries must be received no later than 11/1/90. Slides will not be returned but receipt of entries will be acknowledged. (*Step-By-Step Graphics* is not responsible for damage to entries or late delivery.)

THE JUDGES Entries will be judged on the basis of theme and magazine cover appropriateness, technical and creative excellence. After a preliminary pre-judging by the magazine staff for cover suitability and reproduction quality, final winners will be chosen by an international panel of award-winning designers—Ken Done, Australia; Seymour Chwast, New York City; Charles S. Anderson, Minneapolis; Heather Cooper, Toronto; and Kit Hinrichs, San Francisco. **WHO IS ELIGIBLE** Professionals as well as students working in all areas of visual communications, worldwide. **WHAT YOU WIN** The winning design will be reproduced on the cover of our 1991 Annual which will be published in March 1991, and distributed to more than 50,000 readers in some 50 countries. In addition to the international recognition, the cover artist wins a free visual communications seminar from Dynamic Graphics Educational Foundation worth up to $1,000 (travel not included). Runners-up will see their work published inside the Annual and will receive a one-year subscription to *Step-By-Step Graphics*, and *Step-By-Step Electronic Design*.

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(Continued from page 123)

routine for some companies to slow down or try to avoid payments to their suppliers. So you should not take collection problems personally.

Also, reputable suppliers and professionals never resort to sob stories or gimmickry to get what is legitimately owned them. So when considering how to collect more efficiently, never make the mistake of playing upon the sympathies of a client by indicating how much (or why) you need the money as soon as possible. Personal appeals for money and cutesy reminder techniques (maudlin rubber stamps on invoices, for example) are always demeaning and unprofessional, even when they occasionally work.

GET A COLLECTION PROCEDURE

Even with the best of clients, invoices sometimes get misplaced and payments stalled. And some not-so-good clients simply don't pay any invoice until they get an inquiry. So getting your money on time—keeping your accounts receivable balances and collection averages in line with accepted standards—requires that you have a professional procedure for going after your money, and that you stick to it.

GET AGREEMENT TO TERMS UPFRONT The best defense against having a collection problem later is to make sure that every client understands your payment terms before you begin any work. Also, if you should ultimately have a problem, having prior agreement to your terms in writing makes it a lot easier for you to be aggressive in going after what is owed you.

As detailed in this space last issue, you should have standard payment terms for all clients (usually "net 30"); the terms should be presented in writing as part of a proposal or estimate; and the client should agree to them by signing the proposal or estimate, or issuing a company purchase order.

FOLLOW UP ON LATE BILLS Call whenever an invoice is 15 days past due. This can be a very productive phone call, so never be hesitant to make it. For example, if your invoice terms were "net 30," call when 45 days pass and you still haven't received a check. (If your terms were "payable on receipt," also call at 45 days.)

Calling about a past-due invoice shows you are professional and business-like. Your payment terms have not been met and you have a legitimate reason for concern. You won't offend any good client by making the call, and the ones who might be offended are probably not worth doing future business with anyway.

Inform the client of the problem and ask whether your invoice was signed and put through for payment, or if there is a problem. You may just find the invoice has been inadvertently buried under a stack of papers on the client's desk, or that the client simply hasn't gotten around to approving it, or maybe that the client has questions and was meaning to call you.

TRACK DOWN WAYLAID INVOICES If the invoice was signed and put through for payment, ask the client to find out why it hasn't been paid. With larger companies you may also want to ask if it would help if you called the company's accounts payable or purchasing departments directly. (To do this, you'll probably need the name of a specific individual to talk to and the job purchase order number.)

Be friendly and tactful when speaking to the client directly (you don't want to risk losing future business), but don't be afraid to be more aggressive when speaking to company purchasing or accounts payable personnel. Play the role of a concerned supplier who upheld his or her end of an agreement, only to find later that the client fell down on their part.

SET A RESPONSE TIME If the response to your phone calls is, "We'll have to look into it," try to get a specific time when you can expect an answer. If you don't hear then, call back. Otherwise, call at least once a week until you get a satisfactory answer. Don't be discouraged, and don't let them off the hook.

Once the problem is uncovered and addressed—whether at the client level or within the purchasing/accounts payable system—ask that your invoice be taken out of the normal processing cycle and expedited for immediate payment. Be firm about this; it is their error.

CREATE A PAPER TRAIL In addition to making the follow-up phone calls, it is usually important to send follow-up invoices every 30 days for the record, as well. The only exception is when your phone call brings a promise of immediate payment. In such cases, sending a second invoice risks offending the client.

Otherwise, whenever an invoice is 15 days overdue, send another copy that is clearly marked: "Past Due. Second Invoice. Do Not Duplicate." If payment is still not forthcoming and the original invoice is 45 days overdue, send another copy that is clearly marked: "Past Due. Third and Final Invoice. Do Not Duplicate."

At this point, if you still haven't been paid, you have identified a serious problem, one requiring consideration of the next level, threat of legal action. ■

Boston-based freelance Cam Foote is editor of Creative Business, The How-to-Succeed Newsletter for the Freelance and Small Studio, *and gives the popular nationwide workshops, "How To Make It As A Freelance," and "How To Sell Creative Services."*

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METHODS OF THE MASTERS

Pen and Ink: The Second Generation

Learn why a second generation of illustrators continued to use pen and ink because of its versatility and responsiveness as a drawing medium.

By Nick Meglin

A previous look at illustrators who used pen as a primary medium (*Step-By-Step Graphics*, Vol. 4, No. 5, July/August 1988) revealed that these masters explored its potential for print without the benefit of an established body of pen art to learn from or be inspired by. In a sense they were pioneers exploring new ground. Through their discoveries and innovations, these artists left a rich legacy of successes and failures for other illustrators to study, assimilate and recycle into new and derivative works. This second generation, who in their own way made unique contributions, is the focus of this follow-up study. They, too, found the pen's ability to respond personally to the artist's touch as well as create detail and contrast more than enough reason to use it as a primary medium.

THE GROWTH OF THE MEDIUM

What made the growth of pen drawing especially unique was that while the techniques themselves evolved, the basic approaches did not. The early masters, later devotees and even illustrators today employ the medium for the same reasons: It can be used as an exacting instrument to record information with clinical precision; or as a flexible, expressive drawing tool to capture mood, fleeting gesture or nuance of subject. For whatever purpose it is used, the pen has and still does serve the art world well.

In its early days as an illustrator's medium, pen work was most often found in newspapers. But by the late 1800s, on-the-spot daily newspaper artists saw their work being used less frequently. New technology allowed photos to be reproduced in newspapers, and the public began to accept the photographic image as the most factual means of visual reportage. While it is apparent to readers now that editorial comment, opinion, and distortion can just as easily be presented with photography through various staging or cropping devices, the "camera doesn't lie" philosophy prevailed over the seemingly more subjective art of drawing. Thus, the illustrator was forced to explore and develop new venues for his craft.

Concurrently, pen and ink drawings became especially attractive as a medium for magazines because they offered a welcome contrast to the photography seen in newspapers. Long columns of type with accompanying overall gray photographs left a graphic void. Sensing this, magazines began to exploit the pen's strong, linear design and bold commitment to the page.

Just as technology began to change where pen art was reproduced, it also changed how the art looked. Constant improvement in photoengraving procedures enabled pen draftsmen to experiment with new possibilities. Suddenly pen illustrators no longer had to rely on the wood engraver to faithfully translate a drawing. Freed of inhibiting limitations like these and now assured of fidelity to the original design, illustrators developed more expressive pen techniques. Line itself became important, as did tonality, which was achieved through intricate crosshatch and stipple patterns not possible with woodcuts. While such line work especially suited illustrators who worked in a representational style, everyone benefited, including those illustrators whose work could be described as decora-

The English School W. Heath Robinson, Arthur Rackham, Edmund Dulac and Edmund Sullivan were able pen draftsmen who followed in the tradition of the "English school" of their predecessors and peers, George Cruikshank, John Tenniel, Randolph Caldecott and so on, with linear mastery and concern with light and shade. Here we see Robinson and Rackham using the traditional methods of dark, bold outlines to help define form (upper left and right), while Dulac (lower right) models his forms through the tone created by the shadows. (Sullivan's work is at lower left.)

Edmund Sullivan In the three smaller pieces at right, Sullivan explores various pen approaches. Compare the complex rendering of the face in the first drawing with the simplicity of rendering in the second, and the heavy strokes in the third image. This is one of many demonstrations in his classic book, "Line," published in 1923 by Charles Scribner's Sons.

Robert Blum This artist's pen line appeared as if etched on paper (this page, far right). Even in the dark areas, which appear bold against the fine lines, he handles form with sensitivity, leaving just enough open line to draw the viewer's interest.

Thomas Fogarty Fogarty had an eye for the human condition and his pen line reflected this sensitivity, his compositions evolving from an accumulation of deft but delicate strokes (opposite page, at left). Notice that the form-giving outside lines and those that make up the folds of the coat are not a single line, but a series of strokes.

Rockwell Kent In a typical Kent drawing (opposite page, at right), the placement of the figure is far from being arbitrary—it is carefully calculated to carry its own "weight" within a well-structured composition. The rich patterns of light and shade further emphasize the solidity of each form. In the shadows, Kent makes transitions from the darkest areas to the light with evenly placed horizontal lines.

tive, narrative, stylistic or expressive.

While this kind of categorization is limiting, it may very well assist us in better understanding pen illustration and some of the artists of this second generation.

THE REPRESENTATIONAL APPROACH

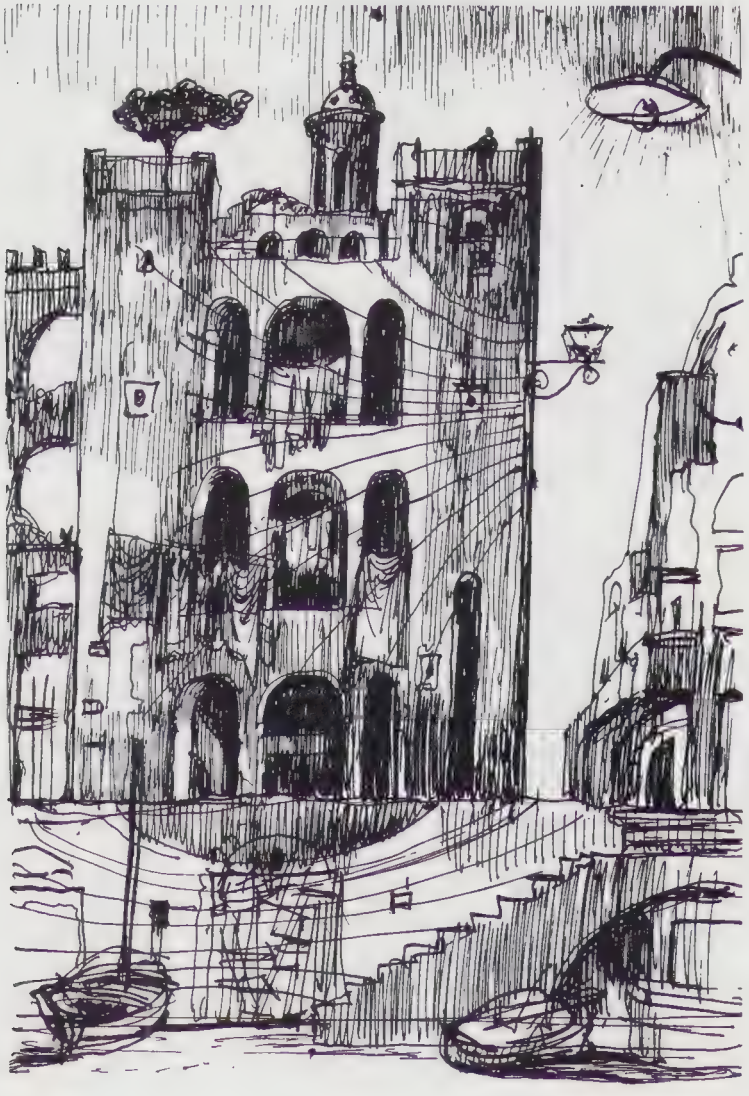
Following in the steps of the British pen draftsmen who graced many historical book editions and early journals with their brilliant efforts, the "English school"—W. Heath Robinson, Arthur Rackham, Edmund Dulac and Edmund Sullivan—continued working in the representational vein of their predecessors. Whether in the realm of mystery, fantasy, or humor, these master craftsmen embellished those texts in such a way that they became as famous as the most popular authors of their time.

While W. Heath Robinson (1869-1944) most often illustrated books with lighter themes, he took this work as seriously as he did weightier subjects. His work was rich, his compositions well-detailed, and he used contrast with a master's eye and hand.

Both Arthur Rackham (1867-1939) and Edmund Dulac (1882-1953) relied on the same bold line for their black-and-white designs and color work (a blend of line and color washes). An outline and wash technique is not easy to master. When the color is used flatly, a coloring book effect can result; when applied ultra-realistically, the subtle tones come to an abrupt halt upon reaching the pen outline. The visual contradiction that results can be more jarring than pleasing. These two artists, however, were very successful in finding that precarious balance between line and tone.

Edmund Sullivan's (1869-1933) mastery of the medium depended upon an entirely different balance, but one that was no less precarious. Unlike other less gifted artists, Sullivan was able to maintain spirited pen work despite the careful study and analysis that preceded most of his work. His imagery is rich with detail, and there was an energy in his stroke, especially in the shadow areas, that gives his drawings life.

In this country, illustrators like Robert Blum (1857-1903) were among the first to consider the reproduction and not the original drawing as the final stage of their pen work. Incorporating the flair of European artists like Mariano Fortuny y Madrazo and Daniel Vierge, Blum maintained a practical eye for how his pen illustrations would appear in a popular periodical like *Century* magazine, which frequently published his work. His drawings combine fine lines that appeared etched; his dark shadows are rich with texture.



Lyle Justice Justice's direct, quick and spontaneous line added to the excitement of his compositions (upper left). The vitality he displayed was, in part, due to a sort of push-pull confrontation with the line and paper. This kind of searching line helps animate the figures in his composition.

Eugene Berman Berman's pen line does not vary to any large degree from project to project (lower left). In drawings that employ line alone, the artist maintains a casualness that defines form with fluid, varied width strokes. This is especially evident in his set and costume designs where he added transparent color washes over his line.

Willy Pogany Pogany was as interested in the anatomy of the human form as a design element as he was in depicting it accurately for the realism he sought in his illustration (above). To depict the subtle forms within the figure, he used short lines of different weights and directions. Important areas were emphasized with shadow.

Henry Pitz Like Lyle Justice, Pitz prepared for extended projects by working out scenes and actions directly in pen on "warm-up sheets" (opposite page, at left). A dedicated student of media, his line would vary from calculated and deliberate to hesitant and searching, depending upon what he believed most appropriate to the text on hand. In many drawings, Pitz employed brush as well as pen, scumbling on a textured paper to create more texture.

John Flanagan Flanagan often employed scratchboard to emphasize the chiaroscuro in a drawing, which helped add drama to the adventure fiction he illustrated (opposite page, at right). Within this pattern of light and shade, however, he created an immense variety of textures. But no matter how complex a pattern he created, his impeccable draftsmanship is evident.

Thomas Fogarty (1873-1938) followed in the tradition of Edwin Austin Abbey and Frederic Remington, artists who, in a sense, painted with pen and ink. Utilizing the basic principles of light, Fogarty depicted form with accuracy and consistency, believing this the best method for creating realistic, three-dimensional images.

THE DECORATIVE APPROACH

Because of the inherent limitations of reproducing pen work through the wood engraving process—the pen has a subtlety of line nearly impossible to achieve with wood engraving—many artists chose a more decorative, two-dimensional style in order to maintain tighter control of the work from its initial conception to the printed piece.

Influenced by Oriental art with its emphasis on pattern, design, and the deliberate flattening of perspective, decorative pen artists used black and countless varieties of crosshatch, stipple, and textural devices to achieve "color" in their black-and-white compositions. In this approach, perspective gives way to symmetry and balance, and the eye is manipulated in a more dramatic, if less realistic way.

From his earliest efforts in book illustration, Rockwell Kent (1882-1971) emphasized solidity in his designs. Both the composition and the figures appear sculpted rather than drawn. Solid patterns of white and black and a sparse use of tonality between these extremes were reminiscent of the early woodcut methods from which his style evolved.

Willy Pogany (1882-1955) is typical of the illustrator whose work defies stringent categorization. While his pen work often defined three-dimensional form masterfully, it is perhaps the elegance of his line, together with his ornate sense of design and composition, that places him in the decorative rather than representational category.

Visual symmetry and respect for antiquity characterize Eugene Berman's drawings (1899-1972). With these facets of his talent, he made a career for himself in stage design (particularly in opera where his set and costume designs became world famous). But he also illustrated books and magazine articles with historical subjects. His line is loose and heavy, giving the appearance he sketched with rapid motions.

THE NARRATIVE APPROACH

Possessing an ability to draw well is always an asset, but it certainly does not represent the complete range of skills required of a professional illustrator. An illustration that does not tell the story is not an effective illustration despite its artistic flourish. Conversely, a drawing need not be subtle, dynamic, stylish, or particularly well-rendered to be praised as a fine effort. It must be remembered that the reading public is much less aware of the illustrator's efforts than those involved in the craft. A well-designed page, together with an eye-catching graphic image, can attract the reader a lot more than a work that appeals to higher aesthetic sensibilities.

Book illustration in particular is a popular showcase for artists with a bent toward storytelling. This medium offers artists an opportunity to immerse themselves in an extended proj-

James Montgomery Flagg Flagg was flamboyant in his lifestyle, with friends among the biggest names in show business and politics. Tall and dapper, he could have just as easily been the subject of one of his own drawings. He employed a bold, direct line, but used more pure black areas, which he applied with a brush (at right). Like scratchboard, he would often scrape into the brushed-in areas to create white-on-black effects.

Orson Lowell Lowell was more successful as a graphic humorist than as an illustrator of serious subjects (lower right). He had a particular flair for recording the absurdity and gamesmanship inherent in the battle of the sexes, and many of his large designs for *Life* magazine, with updated fashions, might be just as amusing today. While borrowing some mannerisms from Charles Dana Gibson, he employed a tighter line and more crosshatching.

Gordon Grant Grant's pen work appeared to have two separate focuses. When working for the popular market, the "Gibson school" influence was obvious, although he used a less calculated line than Gibson. However, in his personal work, most of which was dedicated to nautical subjects, his line took on a freedom and fluidity lacking in many of his more commercial themes (opposite page, left and right).

ect—to create a series of images based on a single theme. It also provides a showcase for the interpretive advantage illustration can have over photography. Even with strong emphasis on fact and detail, new action can be easily devised and figures placed where they best contribute to the telling of the story. This can be done with photography, but only at great expense of time and money. With illustration, settings can be altered to enhance mood and atmosphere, thereby lending more drama to the scene, whether it is historical or imaginative.

Lyle Justice (1892-1960) displayed a unique vitality and daring in his black-and-white illustration by working directly in pen. While Coll's pencil underdrawing was minimal in order to allow his pen work to dictate the final design, Justice often used none at all. His preparation stages took the form of worksheets—pages upon pages of free-flowing linear sketches, vignettes and compositions. From these fragmentary linear notations, the final drawings evolved.

Henry Pitz (1895-1976) illustrated more than 160 books in his long career as a (primarily) black-and-white artist. But perhaps more than his art, his respect for the work of other illustrators enabled him to write about the subject with taste and expertise, allowing countless students and practitioners alike to share in the delights of graphic masters around the world. Pitz drawings show a variety of techniques, including delicate lines combined with dark, textured areas that were scumbled with a brush. The use of a textured paper helps add to this effect.

John Flanagan (1895-1964), a contemporary of many of these book artists, was particularly interested in the chiaroscuro effect, which he used to add drama to the adventure fiction he often illustrated and for which he developed a strong reputation. In addition to his pen drawings, he often used scratchboard, which allowed him to experiment with textures.

THE STYLISTIC APPROACH

Schools of art often emerge around trend-setting artists, but for different reasons. For example, Howard Pyle was more than just a fine illustrator, he was a superlative teacher whose efforts led to the "Brandywine School" of art. Artists considered part of that school—N.C. Wyeth, Maxfield Parrish and Harvey Dunn, just to mention three—are a virtual "who's who" in the history of American illustration. Pyle's teachings were founded on strong creative and aesthetic principles; his goal was for each student to develop a personal vision.

Another type of school is one that develops around a particular style. Innovative illustrators with a distinct look, flair, or "style" are always in great demand. Unfortunately, such popularity also begets problems, not the least of which is imitation. If, for example, an artist of the magnitude of Charles Dana Gibson was not available for a particular assignment or ad campaign (or if the budget could not afford his services), Gibson imitators stood ready to provide a Gibson look. Thus began the "Gibson school," defined as the large body of professional Gibson-like work which came off the drawing boards in conveyer belt fashion. Indeed, some of the published work often required close scrutiny to distinguish the original artist from his hoard of imitators.

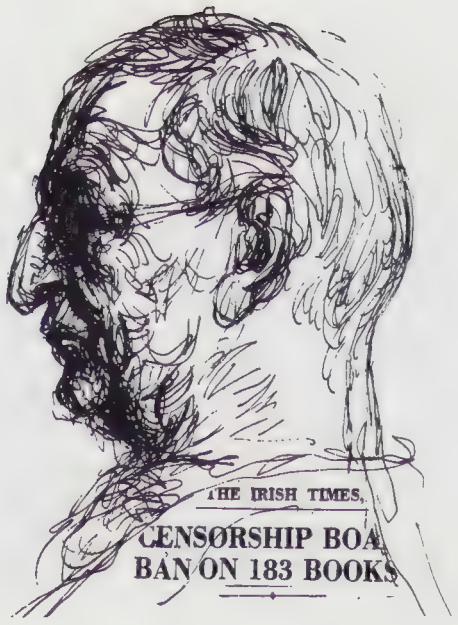
Orson Lowell (1871-1956), like Gibson, depicted the more glamorous side of the contemporary scene. His drawings were often showcased in *Life* magazine as large, double-page spreads. While borrowing some of the linear patterning that Gibson used, Lowell used more crosshatching to create shadow areas.

James Montgomery Flagg (1877-1960) was a household name in his time, befriending political and theatrical celebrities and traveling their circles. (Refer to *Step-By-Step Graphics*, Vol. 5, No. 7, Nov./Dec. 1989). Flagg appears to have been inspired by the flair of Gibson's line, and like Gibson used white space effectively. Flagg, however, was more daring with his use of black, often scraping into the brushed-in areas to create white-on-black effects.

Gordon Grant (1875-1962) illustrated many books in addition to countless magazine articles, including a delightful rendition of Booth Tarkington's "Penrod." Grant also achieved acclaim as an expert on sailing ships and other nautical subjects. His line is not as controlled as Gibson's, giving his work a looser,

Felix Topolski Some of the most absorbing drawings by this artist are not planned so much as they are allowed to evolve from the sketchbook page (drawings at right). Line is fluid and direct, and shadows are emphasized with bold, heavy strokes. Here, the type acts as a tone for the subject's clothing.

Heinrich Kley This artist's superb draftsmanship is often neglected for the ingenuity of his creations. Here he literally searches the caverns of his mind to depict "inspiration" (below). A combination of straight and curved lines and textured shadow areas (made up of these lines) blend to create a lively and interesting drawing.



less sculpted appearance than that of Gibson.

THE EXPRESSIVE APPROACH

While an illustration for a fictional text should be graphically imaginative, a factual text need not be represented by a literal image. In fact, many pen artists have chosen to use this very responsive medium to depict the emotions a book, story or event stirs in them. Felix Topolski (1907-1989), a Polish-born artist who was based in England, preferred to draw on-the-spot for these same reasons. As a result, his imaginative studio work, such as his illustrations for Shaw's "Pygmallion," appear to be improvisational as if they were drawn from life.

The expressive approach is often nothing more than an emphasis on and exploration of mood and psychological depth. The same degree of drawing accuracy can be maintained as in a literal interpretation, but the key is emphasis. In an expressive drawing, the emotional intensity is never compromised for surface detail. A seemingly improvisational account not crushed under the weight of excessive detail and linear embellishment can have a far-reaching graphic impact.

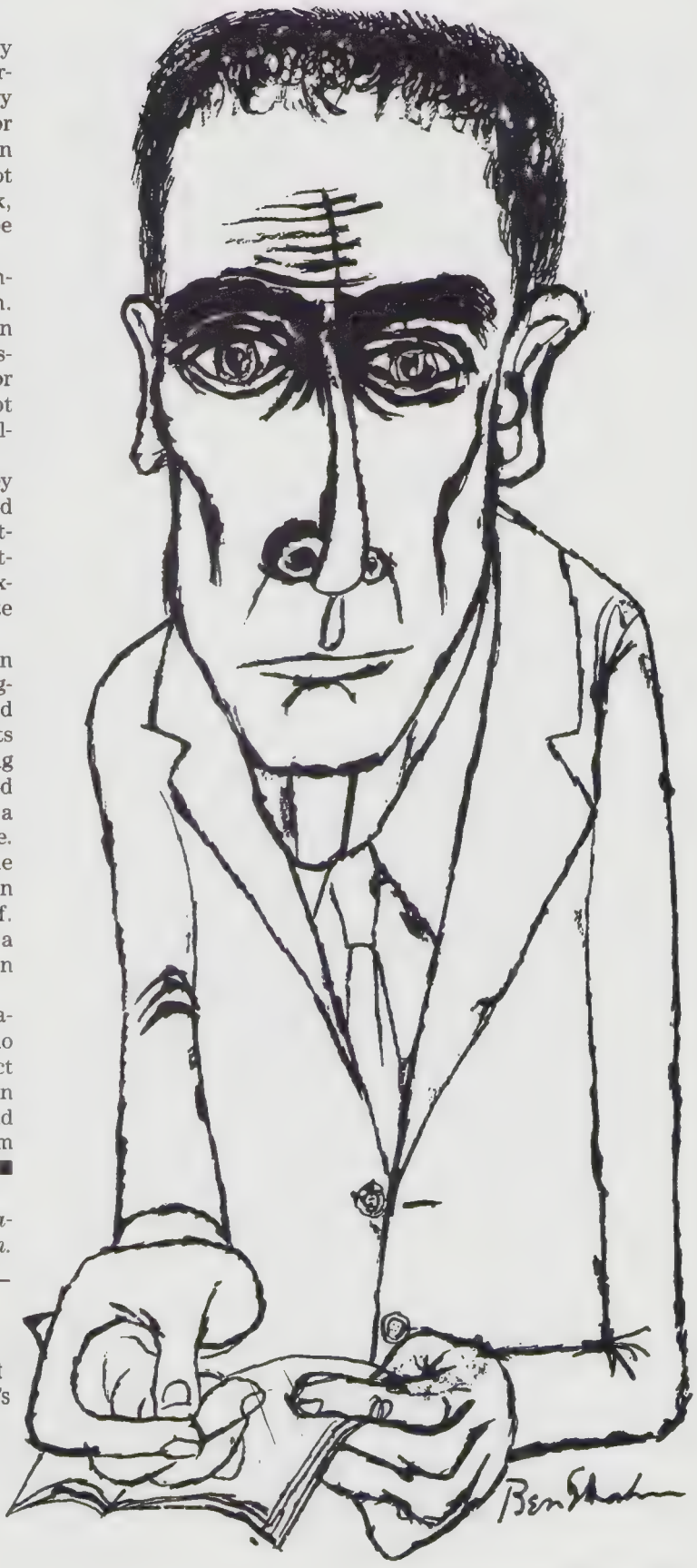
Certainly, the flights into the fantasy world of Heinrich Kley (1863-1925) were of this order. Human-like animals and machines poured out of his pen with unequaled facility, creating a lively, imaginative world. But unlike others whose attempts at expression hide an inability to draw, Kley was an excellent draftsman whose highly charged drawings are accurate in line and form.

The work of Ben Shahn (1898-1969) had a great impact on the graphic world because its "abstract" feel was so strikingly different from the ultra-realistic trend of the time. Respected as a fine artist, Shahn approached commercial assignments with no less intensity, craft and originality. Always searching for new ways to express his ideas with drama, he often used a brush technique that somehow retained the fluidity of a brush stroke, yet incorporated the look of a flexible pen line.

All of these expressive artists sought originality through the pen. Shahn summed up this elusive characteristic best when he said, "Originality, to me, is when a person is totally himself. And so, developing originality is not something one does in a purposeful way, it is simply the outgrowth of a person. It's an organic change."

Like this second generation of pen artists, there are illustrators working today—some inspired by these practitioners—who continue to use pen and ink because it can be the most direct of all media. Whether it is line, form, composition or just plain drawing skills, the pen reveals an illustrator's strengths and weaknesses. That is, of course, the challenge of the medium and its enduring fascination. ■

In addition to his responsibilities as coeditor of Mad *magazine, Nick Meglin is a writer who specializes in illustration.*



Ben Shahn Shahn was an artist with strong beliefs and convictions. Once asked why someone with his ability to draw accurately "distorts," Shahn replied, "Because that's the way I feel. It is even more important to put down what you feel than what you see." It is obvious that Shahn's portrait of Dr. J. Robert Oppenheimer is a visual confirmation of his approach. Shahn often used a brush technique that retained a fluid appearance, but incorporated the look of a flexible pen line. The nuances in the line help add to the tense and anxious feeling of the drawing.

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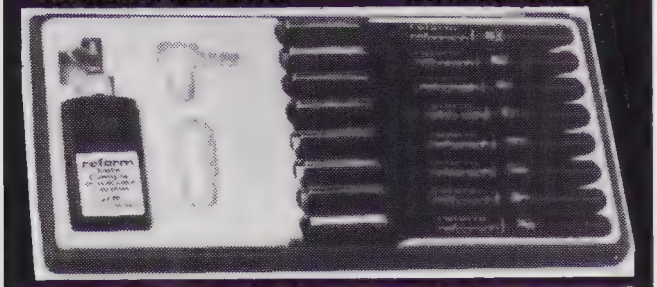

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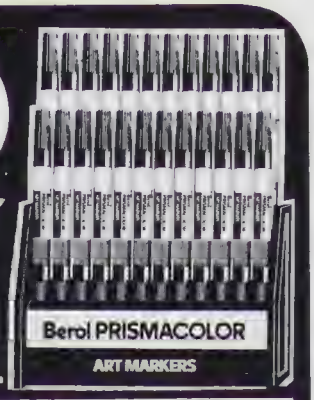

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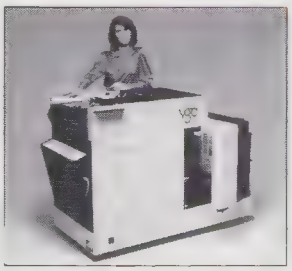

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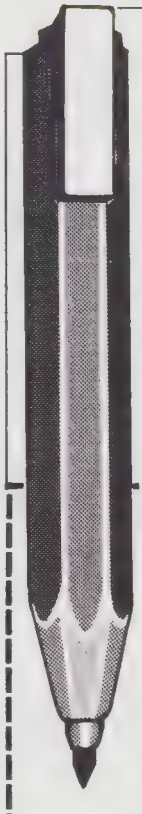

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SHORTCUTS

These timesaving tricks and tips will help you get the job out the door.

GEM OF A CLEANER

I have found that the small jewelry cleaner/soakers for sale in department stores are a cheaper alternative to the technical pen cleaners on the market. A reliable jewelry cleaner can be had for around $10.

—Debra Schuster
Dubuque, Iowa

STAT OF THE ART

It's easier to clean up a stat when it is "fresh." After a stat has been removed from the camera, I moisten the emulsion surface with water on a sponge (for larger areas) or a cotton swab (for spots). Then I lightly scrape the dust marks or shadow/cut lines from the paper. Dry as usual.

—Maxi Harper
South San Francisco, Calif.

PAINTING ON ACETATE

If you find that applying paint to acetate is a messy and uncontrollable process, try tracing the outline of the area being painted (size permitting) with a knife blade. Be careful not to cut through the acetate. Then fill in with paint. You will find the color will stop at the cut lines. This works particularly well with block-type headlines.

—M. Gilbert
Oradell, N.J.

NEON GLOW EN CAMERA

To get a neon glow around a piece of line art without using an airbrush, shoot the art on your stat camera, then shoot another stat with the wrong lens (that is, the wrong aperture for the proportion you are shooting). The resulting out-of-focus stat, when re-shot as a halftone, will fit perfectly around the object as a hazy glow in the background.

—Rick Crippen
Reno, Nev.

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PREPRINTED COPY & LASER PAPERS

When you want four color and you only have a one color budget, invest in a preprinted sheet manufactured especially to be run through a copier or laser printer. Alvin & Company and PaperDirect are just two companies that now offer a number of illustrated, color graduated, textured and fibered sheets formulated to withstand the temperatures copiers and laser printers produce. For information on Alvin's DECAdry sheets, call (203) 243-8991; for information on PaperDirect products, call (800) A-PAPERS.

Copier and Laser Papers These preprinted sheets (Alvin & Company), available in a variety of colors and designs, can provide color on low-budget copier and laser "printed" jobs.

LONGER LIFE FOR BOARDS

To keep the edges of a layout board sharp and uncrushable, especially boards which are reused or handled and taped frequently, apply a fine coat of super glue in a one-inch swath on the edges of the board (the glue adheres to skin instantly, so use care). When dry, the edges of the board are reinforced.

—Stephen B. Blake
Southbury, Ct. ■

"Shortcuts" are contributed by working professionals like you. Send your ideas to "Shortcuts" Editor, Step-By-Step Graphics, *6000 N. Forest Park Dr., Peoria, IL 61614-3592. If we publish your material, you will receive $30 for each tip published, plus a small thank you gift. (All submissions become property of* Step-By-Step Graphics.*) Although the techniques we publish here have worked for others and should work for you, too, we cannot guarantee specific results.*

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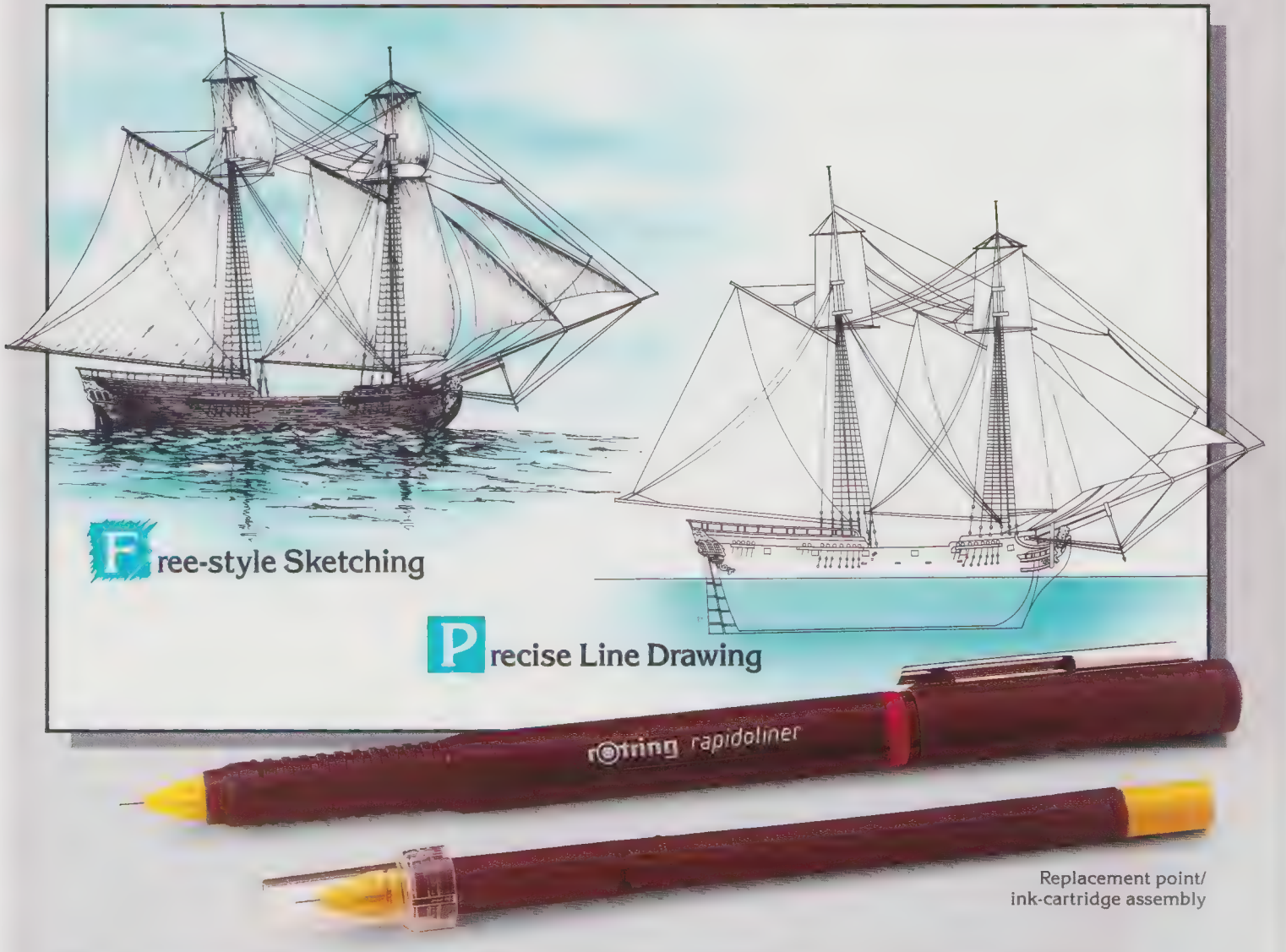

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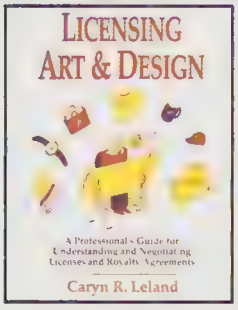
REFERENCE SHELF

Book reviews of the latest and standard titles imparting how-to and career aid information.

Licensing Art & Design


LICENSING
ART & DESIGN
A Professional's Guide for Understanding and Negotiating Licenses and Royalty Agreements
Caryn R. Leland

You have carefully nurtured an original design or idea until it's ready for the market, and you feel certain you can sell it. What's next? "Licensing Art & Design," by graphic and fine arts attorney Caryn R. Leland contains the roadmap you need, offering much more than its subtitle reveals: "A Professional's Guide for Understanding and Negotiating Licenses and Royalty Agreements."

The first chapter defines licensing—"selling certain rights . . . for specific purposes or for particular applications." Licensed usage extends almost as far as the imagination can reach these days, from simple stuffed toys and greeting cards to ceramics and childrens underwear. Leland notes that the most common areas of licensing for graphic and fine artists (apparel, stationery, textiles and so on) generates $5 billion in retail sales annually and $75-100 million in royalties to artists—well worth the effort.

Leland goes on to specifically define sometimes slippery terms like "copyright," "trademark" and "patent," using her legal experience to shape the definitions for the artist. Steps toward safeguarding your idea—before it is exposed to the perils of a hungry marketplace—are also outlined.

Perhaps the most valuable component of this modestly priced book are its long and short form licensing agreements, ready for use right off the rack. These are not surprisingly complex, as they are legal documents, but the author takes the time to explain each section, qualifying particular circumstances and noting exceptions.

The book concludes with how to engage a licensing agent and how to draw up agreements with an agency, as well as a listing of comparative average royalties (interesting stuff for those who are still deciding whether or not to take the plunge) and a handy section on resources, including organizations, publications and most importantly, buyers.

Allworth Press
Distributed by North Light Books
1507 Dana Avenue
Cincinnati, OH 45207
112 pages; $12.95

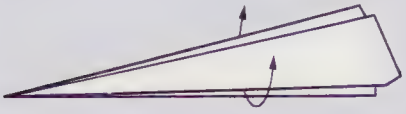
Art for the London Underground

This marvelous volume, which traces the poster art created for the London Underground from its beginnings in 1908 up to the present, is a virtual history of British graphic design and illustration. And it is certainly meant to be read on more than one level. While the material is interesting from a historical point of view, designers and illustrators will no doubt be intrigued by the variety of styles seen in the examples, which represent only a small fraction of the more

PRINTING PAPER RESOURCES

Contact your local paper merchant or write to the paper manufacturer/supplier for copies of the following inspirational, informational and technical references. Here are a few ways to use them.

Paper of a Higher Plane (For an example of printing on alkaline paper.) Not only does International Paper give you complete instructions on how to construct five completely different paper airplanes, it gives you the Springhill sheets to fool around with. A complete explanation of the history, archivability and performance of alkaline papers is included. (International Paper, 6400 Poplar Ave., Memphis, TN 38197.)



Digital Imagery (For examples of metallic inks on coated stock, and numerous examples of computer-rendered art.) This mega-promotion (weighing in at more than one pound) was designed by Julius Friedman to show off Mead Mark I and Mark 5 cast-coated sheets by sharing the computer art of 25 electronic and traditional artists in an almost frameable form. Art by Ron Chan, Barbara Nessim, Ellen Sandor, Max Seabaugh, Joel Slayton, Nam June Paik, John Hersey and Louis Fishauf is featured, together with some mysterious and elegant photography shot by Voyager I and II. (Mead Paper, Courthouse Plaza Northeast, Dayton, OH 45463.)

The Hammermill Paper Book (For quick reference to paper terminology and usage.) The handy booklet promotes all of Hammermill's lines, and is subtitled "A Guide to Paper Basics." A useful glossary of terms is included. (Hammermill Papers, 6400 Poplar Ave., Memphis, TN 38197.)

Proterra (For examples of spot and four-color printing on recycled paper.) Hopper Paper's Proterra booklet is useful both for judging the stock's printing performance and for simply manhandling the sheet. (Hopper Paper Company, P.O. Box 105237, Atlanta, GA 30348.)

Environment (For examples of stationery sets printed on recycled stock, plus a hangable poster on recycling.) Neenah has produced a promotion for its new Environment line, which, if the booklet didn't have the word "recycled" printed all over it, might fool the unsuspecting into thinking it was virgin stock. (Neenah Paper, Neenah, WI 54956.)

The Nature of Design (For an example of a step-by-step logo development.) Domtar uses its Byronic line, which contains recycled materials, to explore the relationship between design and nature. Even the stock reflects the natural colors of the land, sea and sky. (Domtar Fine Papers, 600 Summer St., Stamford, CT 06901.)

The Move That Counts (For examples of

than 3,000 posters in the London Transport Museum's archives. Of the British designers included, especially noteworthy is work by Walter Spradbery, Frank Brangwyn, Fred Taylor, Horace Taylor, Tom Purvis, Tom Eckersley, Bruce McLean and Dan Fern. Interestingly, several Americans are also represented, including E. McNight Kauffer (a standout of the book), the first to introduce modernism to the Underground posters, Man Ray and Sandra Fisher. Others like Laszlo Moholy-Nagy and Zero (Hans Schleger) and Hans Unger give this collection an unexpected international flair.

This book certainly proves why the poster, a graphic medium little more than a century old, is still one of the most powerful options at the designers' disposal. Whether this volume is used as historical reference or as a point of departure for other illustration or design work, it is sure to spark some fresh ideas that will continue this glorious tradition.

Rizzoli International Publications Inc.
300 Park Avenue South
New York, New York 10010
144 pages; $29.95

Canned Art

With the advent of the personal computer and its ever-growing tribe of software packages, clip art is being seen in a whole new light. "Canned Art: Clip Art for the Macintosh," by Erfert Fenton and Christine Morrissett, lets you know exactly what is available today and how such art on disk can be used. A major disappointment, however, is that some of the art suffers because of the book's poor printing. But being able to see the style and range available from each company makes the book a good reference nonetheless.

This two-inch-thick book is primarily a catalog of companies producing art on disk, with examples of each of their products. Samples of textural backgrounds, electrical symbols, typographic designs, religious, Oriental, nature, silhouette, fine-line Victorian and Art Deco art, borders, logo icons, and *much* more are shown—even mug shots of U.S. Presidents.

In the front of the book, chapters on file formats, tips on using and manipulating clip art, as well as art storage and organization are helpful. Perhaps most useful is the cross-referenced index of the art (ambulance, American Gothic, amoeba, anatomy, and so on). Coupons in the back of the book are good for more than $1,000 in discounts on clip art packages.

Peachpit Press
1085 Keith Avenue
Berkeley, CA 94708
$29.95

Make It Legal

The basic premise of this legal guide for graphic arts professionals is "what you don't know can hurt you." Author Lee Atwater, a former creative director turned lawyer, rightly believes that if you earn your living as a graphic designer, illustrator, art director or pho-

four-color printing on non-deinked—the ink has not been removed from the original paper—unbleached recycled stock.) This is perhaps as environmentally friendly a promotion as you can get—100 percent recycled stock that is non-deinked, unbleached and colored with environmentally safe agents. And the piece was printed with vegetable-based inks. The stock's very interesting "peppered" surface could lend a unique texture to many printing jobs. (Domtar Fine Papers, 600 Summer St., Stamford, CT 06901.)

Sensations (For examples of embossing registered with a multi-level die, match colors, a die-cut pop-up and scented varnish.) It's Smell-O-Vision! One page of this Hammermill Offset Opaque and Cover promotion carries a bayberry-scented, scratch-and-sniff varnish, just one of the sensory triggers included. (Hammermill Papers, 6400 Poplar Ave., Memphis, TN 38197.)

Sumo (For examples of clear hot stamping, tinted and metallic varnishes, sculpted emboss, duotones, and mezzotints, all on uncoated stock.) Designed by Samata Associates, this Hopper promotion uses the subject of Sumo wrestling to illustrate characteristics of its Chambray line—strength, endurance, competition, and so on. (Hopper Paper Company, P.O. Box 105237, Atlanta, GA 30348.)

Patina: The Range (For examples of die cutting, fluorescent and metallic inks, and reference shots of the American West.) Color photography by Albert Watson highlights this S.D. Warren Patina promotion. Of special interest is a two-page duotone printed in black and copper metallic ink. (S.D. Warren, 225 Franklin St., Boston, MA 02110.)

Spectrascan Color Hits (For four-color examples of the work of 13 leading illustrators and designers.) This promotion-as-jukebox contains 13 Scott Vellum Opaque 45s, each one a different color, each illustrated by the likes of Seymour Chwast, Geof Kern, Anthony Russo, Douglas Fraser, Melissa Grimes, J.C. Knaff and Andrzej Dudzinski, among other talented artists. (Scott Paper Company, 225 Franklin St., Boston, MA 02110.)

The Warren Papers (For industry and company-specific paper news.) S.D. Warren's new series, "The Warren Papers," discusses the company's own brands, but it also provides four-color reproductions of award-winning publications and information on the stock each was printed on. (S.D. Warren, 225 Franklin St., Boston, MA 02110.)

Running Across the Line (For actual printed samples of real design work on coated stock.) International Paper doesn't just describe how their Springhill Coated Cover performs; it shows you with a 22 x 28-inch poster, a six-leaf gatefold, a restaurant table card, a retail postcard and a self-promotional corporate report, all real design projects done for real clients. (International Paper, 6400 Poplar Ave., Memphis, TN 38197.)

tographer, you need a working knowledge of copyright, trademark and libel law, as well as laws governing privacy, the right of publicity and false advertising.

In this comprehensive and straightforward volume, written especially for graphics and advertising professionals, Atwater clearly explains such complex subjects as what copyright protects and how to gain that protection; how to select a registerable trademark that will not land your client in court; what libel is; what are the rights of privacy and publicity and other legal questions that many graphic arts professionals simply do not know enough about.

Atwater avoids legalese and even illustrates her points with sometimes humorous fictionalized anecdotes that recount realistic situations. In explaining copyright infringement, for example, the author tells the story of using an auto dealer who calls himself, "The Super Dealer." As the designer, if you used a photo of him in a cape, standing shoulder-to-shoulder with Batman and Superman, you would be guilty of copyright infringement and a trademark transgression.

The back of the book also has an interesting appendix which contains usable forms. One, for example, grants limited license for use of photographs, another assigns copyright for photographs. There are also official copyright registration or copyright search forms from the U.S. copyright office. The helpful resources section lists names and phone numbers of all the government agencies a designer may need to contact, as well as a bibliography of helpful books on the subject. For the legally unaware, this is a definite must-have.

Allworth Press
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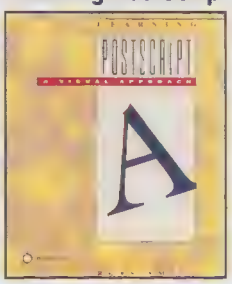
Learning PostScript: A Visual Approach



If the word "PostScript" sends you running for cover posthaste, this may be a book to look into. "Learning PostScript: A Visual Approach," by Ross Smith, PostScript editor for *PC Publishing* magazine, is written specifically for the nontechnical reader (although it is a "heavy" read), including graphic designers, typographers, desktop publishers and others whose businesses by necessity throw them into the programming language fray.

The book begins by defining PostScript and explaining its capabilities. The remainder of the book is filled with examples of how PostScript creates graphics and text, both in black-and-white and in color, beginning with a simple straight line and moving on to working with four-color art. The sections that show how the language handles type are particularly illuminating.

The actual PostScript code strings which appear with each example can be intimidating, but the author is not asking the reader to execute the codes. Fortunately, the PostScript programs graphic designers use most today do the dirty work for us. This raises a question, though: If the book is not for programmers and if designers are not assumed to be programmers, why provide the strings at all? But being able to see how the programs work can only increase a graphic artist's awareness of its potential.

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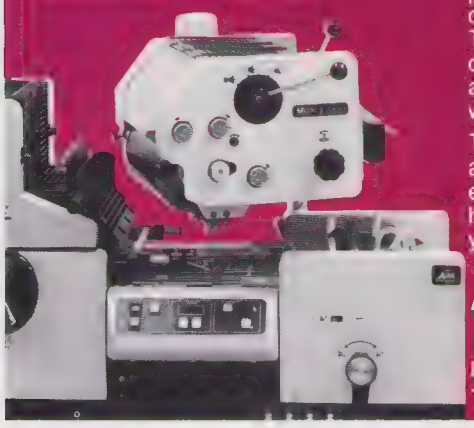

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CALENDAR

Upcoming seminars, trade shows, exhibitions, deadlines and other events in visual communications.

SEPTEMBER

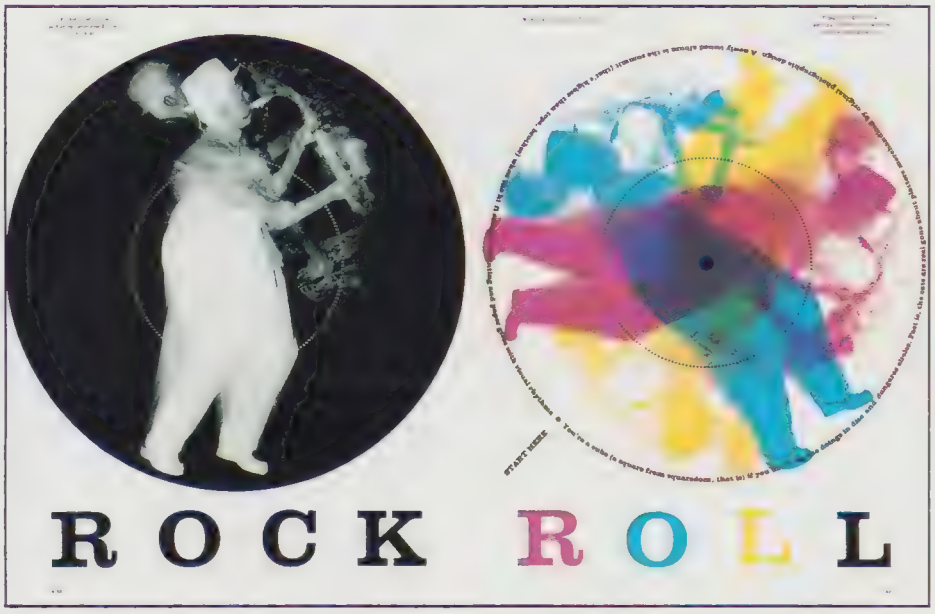
Design Team Management September 16-20, Harbor View Hotel, Martha's Vineyard, Cape Cod, Mass. The Design Management Institute's 15th annual conference is designed to help design managers effectively promote group activity in design programs. Contact: The Design Management Institute, 777 Boylston St., Boston, MA 02116; (617) 338-6380.

Mead Annual Report Show September 17-21, American Institute of Graphic Arts, New York City. The design, photography, illustration, typography and printing work of the winners of Mead Paper's 34th Annual Report Competition will be shown. The exhibit will travel to more than 60 cities in 1990. Contact: Mead Fine Paper Division, World Headquarters, Courthouse Plaza Northeast, Dayton, OH 45463; (513) 495-3749.

Graph Expo '90 September 23-26, Javits Convention Center, New York City. Thirty-three topical seminars on the latest technology for graphic design, including electronic publishing, color reproduction, and marketing techniques, will be offered. Contact: Graphic Arts Show Company, Inc., 1899 Preston White Drive, Reston, VA 22091-4326; (703) 264-7200.

Bradbury Thompson Exhibition September 25 through October 20, Pacific Design Center's Murray Feldman Gallery, Hollywood, Calif. A display of the prolific designer's work, in the form of a visual history will be presented. Contact: Westvaco Corporation, Westvaco Building, 299 Park Ave., New York, NY 10171; (714) 670-7531.

20th Annual National Design Conference September 30 to October 3, Nashville, Tenn. Presented by the University & College Designers Association, the event's main focus will be future trends facing the design profession. Contact: UCDA National Office, 2811 Mishawaka Ave., South Bend, IN 46615; (219) 288-UCDA.



Bradbury Thompson Exhibition, September 25 through October 20, Pacific Design Center's Murray Feldman Gallery, Hollywood, Calif. ("Rock 'n 'Roll," by Bradbury Thompson, for "Westvaco Inspirations," No. 210, 1958.)

OCTOBER

Photo/Design Awards Competition Deadline for entries, October 1. Sponsored by Eastman Kodak, photos produced between September 1, 1989, and August 31, 1990, are eligible for competition in the fields of advertising, marketing, publishing, promotion, and corporate communications. Contact: Photo/Design Awards, BPI Communications Inc., 1515 Broadway, New York, NY 10036; (212) 536-5324.

Graphic Artists Guild See Party October 2, The Dorothy Quincy Suite, John Hancock Building, Boston, Mass. The gathering will exhibit the illustration and design work of 60 top New England artists. Contact Boston Graphic Artists Guild, P.O. Box 1454-GMF, Boston, MA 02205; (617) 338-6369.

The 1990 Seybold Conference October 2-5, San Jose Convention Center, San Jose, Calif. The conference and exhibition will focus on the latest electronic devices and techniques for the desktop publisher. Contact: Seybold Seminars, 6922 Wildlife Rd., P.O. Box 578, Malibu, CA 90265; (213) 457-5850.

Childrens Book Illustration October 12 through January 6, 1991, Bertha Corson Day Bates exhibit; and November 16 through January 6, 1991, Howard and Katharine Pyle exhibit. Titled "Where The Wind Blows," the Bates exhibit features the artist's illustrated fairy tales. In addition, "The Wonder Clock," by brother-and-sister team Howard and Katharine Pyle, in which she created decorative headings and poems introducing each of the 24 stories written and illustrated by her brother, will be shown. Contact: Delaware Art Museum, 2301 Kentmere Parkway, Wilmington, DE 19806; (302) 571-9590.

The Photo Show October 17, The Grand Ballroom, New York City. Presented by ASPP and PACA, the one-day show will feature still photography in the editorial and commercial fields. Contact: Picture Agency Council of America, 4203 Locust St., Philadelphia, PA 19104; (215) 386-3521.

Just Type Exhibition October 18 through November 16, AIGA Gallery, New York City. "Just Type II" will examine design solutions using type and calligraphy in a wide variety of materials including magazine covers and spreads, books, advertisements, compact disc packaging, corporate literature, menus, and posters. Contact: American Institute of Graphic Arts, 1059 Third Ave., New York, NY 10021; (212) 752-0813.

1990 Creativity Conference October 19-21, Chicago, Ill. "The New Globalization: Designing for International Markets," sponsored by the American Center of De-

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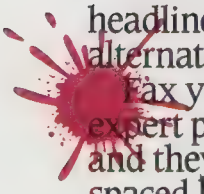

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sign, will address global marketing, new technologies and new markets, and the response of corporate and consultant design practices. Contact: American Center of Design, 233 E. Ontario, Suite 500, Chicago, IL 60611; (312) 787-2018.

DGEF Seminars and Workshops Intensive two- to five-day courses beginning in September and October, including Airbrush Techniques, Graphic Design for Desktop Publishers, Creative Advertising, and Successful Design for Presentation Visuals. Contact: Dynamic Graphics Educational Foundation, 6000 N. Forest Park Dr., Peoria, IL 61614-3592; (309) 688-8866.

The Fundamentals of Color Two-day seminars, selected dates and cities. The basic principles of color science, and design and control processes of color production will be discussed. Contact: Macbeth, P.O. Box 230, Newburgh, NY 12551-0230; (800) 431-4952.

NOVEMBER

Step-By-Step Cover Competition Deadline for entries, November 1, 1990. Submissions to the cover competition must address the theme of color, and may use any method or combination of methods to solve the design problem. Winning design will appear on the cover of *Step-By-Step Graphics*' 1991 "Designer Guide to Using Color." See the announcement in this issue for more details. Contact: *Step-By-Step Graphics*, 6000 N. Forest Park Dr., Peoria, IL 61614.

GRAFIX '90 November 30 through December 2, Javits Convention Center, New York. The National Conference for Graphic Design Professionals will include a variety of useful seminars covering a number of graphics disciplines, from art direction and typography to beginning and advance desktop design and production, business issues, freelancing and self-promotion. More than 200 exhibitors will be present. Contact: GRAFIX '90, c/o Conference Management Corporation, 200 Connecticut Ave., Norwalk, CT 06856-4909; (203) 852-0500. ■

Send your news releases announcing future events, allowing at least two months lead time, to: Calendar, Step-By-Step Graphics, *6000 N. Forest Park Dr., Peoria, IL 61614-3592.*

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Daniel Dejan, Sr. Mgr., design/production, Baxter Healthcare Corp.; Kurt Klein, V.P., Bright & Associates, and DGEF instructor

Signature Styles: Using Typography Creatively
Ronn Campisi, Ronn Campisi Design; Louise Fili, Louise Fili Design

Pricing: How to Charge What You're Worth and Collect on Time
Cameron S. Foote, Editor "Creative Business" newsletter, and Step-By-Step "Freelancing" columnist

Working With PostScript Color: In the Trenches
Lance Hidy, Lance Hidy Associates; Bob Schaffel, Manager, Sprintout; Steve Hannaford, co-publisher, MacPrePress and Step-By-Step Electronic Design columnist

Leading Edge Magazine Design: The Method to Their Madness
David Carson, Beach Culture magazine; Gary Koepke, Koepke Design; Greg Paul, Brady & Paul, and DGEF instructor

Methods of the Masters
Walt and Roger Reed, Illustration House, Inc., and authors of "The Illustrator in America" books (And visit the exclusive "Masters" exhibit at the Step-By-Step booth.)

Care and Feeding of the Visual Imagination
John Sposato, design and illustration studio owner, and DGEF and SVA instructor

Setting "Real" Type on the Desktop
Kathleen Tinkel, copublisher, MacPrePress, and Step-By-Step Electronic Design columnist; Joe Treacy, graphic designer and founder, Treacyfaces

The Business of Dimensional Illustration
Dimensional illustrators Margaret Cusack, Kathleen Ziegler, James Nazz and Bill Finewood; and Medical Economics Art Director Roger Dowd

Electronic Design and Illustration on the Computer
Bert Monroy, principal, Incredible Interactivity, and DGEF and SVA Instructor

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See pages 138-139 for more information

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VIEWPOINT

Is There An 'Ideal' Education?

What's at the core and what's on the periphery of today's graphic education curriculum?

By Kevin Byrne

The "ideal" graphic design program at a college or university level. What is it? Does it even exist? It seems everybody would like to know.

But has anyone ever really tried to answer this question? And how? Trade publications make frequent forays into this arena. *Step-By-Step Graphics*, for example, has generated several articles based on roundtable discussions that sought to elicit wisdom from luminaries in education and practice. Professional design associations, such as the American Center for Design and the American Institute of Graphic Arts (AIGA), have a go at it now and then; the former published a special issue of its journal while the latter tried to address it with a famous little pamphlet, "Graphic Design Education." Conference organizers are also frequently at work defining programs and curricula. Witness the Graphic Design Education Association's symposia from the last two years, addressing the expansive themes of "pedagogy" and "boundaries," replete with presentations, workshops and a questionnaire that sought to "index" the plethora of schools out there. Despite these efforts our hunger for answers seems to proceed unsated. We need to know: What's at the center of what we teach, and, by extension, what isn't?

So a year ago I suggested to the steering committee of the "Core of Understanding" (a Graphic Design Education conference) that I survey facts and opinions about design programs during their late-1989 conference in Minneapolis.

GENESIS

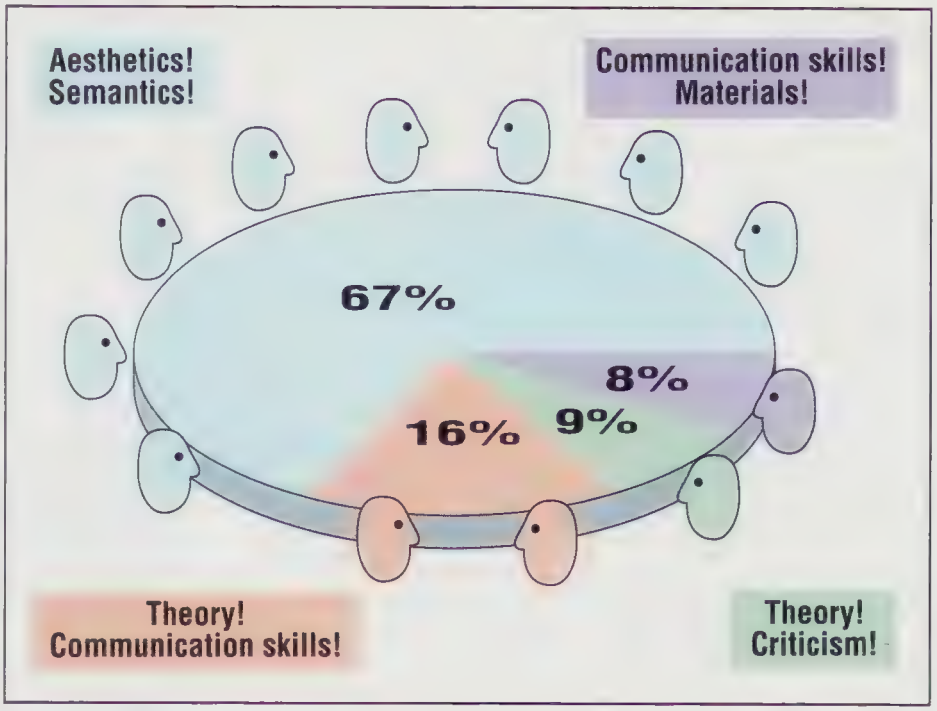
Where does one start? I reasoned a good place would be the AIGA pamphlet, printed and circulated widely from 1987 on. Years in development, it was a first effort to list and briefly describe "subjects, concepts, and skills of a basic graphic design education." Authors of the pamphlet have endured both praise and criticisms of their efforts. I imagined that it might be useful to tap designers and educators directly for their views on the importance of the concepts listed, perhaps allowing the profession to focus any criticisms it may have.

But most people know that lists are tricky phenomena. They are quite one-dimensional and seem somehow unsatisfying. They cry out for fiddling: ordering, classification, sequencing, or perhaps ratings of some sort. On the other hand, the ordered lists or hierarchies that might result are often complex and incomplete, their categories usually miss the implicit goal of "mutual exclusivity," and they are difficult to agree upon. Ultimately, the rating of educational concepts against some broad, useful criteria seemed to make sense. With that notion, and a modest chunk of money from the committee, I forged ahead.

Two big questions—what and how—led me to three criteria:

- What do our design schools emphasize? (assessment criterion)
- What is relevant—what do we want our design education to be? (ideals criterion)
- How are our visions shared—how do they differ? (consensus criterion)

The "Core of Understanding" conference afforded the committee and I a fine context for a survey. An outside expert was hired as survey consultant and three faculty volunteered to help code data. The use of microcomputers permitted a fast turnaround, and a large pool of conferees translated into a good sample of respondents.



Survey Results Imagine 12 instructors of a large design school gathered around a curriculum planning table. We know from our survey that eight of the 12 are mainstreamers who would center the debate upon aesthetic and semantic topics. Two of the 12 might well be proponents of design theory and communication skills as concepts at the core of a basic design education. Another educator at the table puts theory and criticism atop her list of most relevant concepts, while a twelfth educator would defend communication skills and materials.

In 1991, a full report will be published as part of the "Core Conference" proceedings. For the purpose of this "Viewpoint" article, however, I will summarize the survey design and streamline the findings into a map of concepts, a profile of survey respondents, and a portrait of audience segments. (See Figures 1, 2 and 3.)

SURVEY RESPONDENTS' PROFILES

Differing perspectives were brought to both the conference and to its survey. The background collected gave me a useful profile of conferees. Half the respondents said they were primarily educators, while one-fifth claimed they were primarily designers. (Many said they both practiced design and taught.) Survey respondents seemed relatively young: well over half had degrees that dated from the 1980s. Exactly one-third had degrees awarded from 1960 to 1979. Plenty of the educators had advanced degrees: 85 percent of those who responded to a query of "highest degree" had an MA or MFA, while 15 percent had BAs or BFAs. Gender was almost an equal split, though educators as a subgroup were represented by more male than female respondents (58 to 42 percent). Sixty percent of the survey respondents declaring themselves as "affiliated with a school," described the degree most frequently offered at their institution as the BFA, with another one-quarter giving the BA as their school's most proffered degree. Respondents had been affiliated with their schools for an average of eight years.

PORTRAITS

When background profiles were compared with responses we were able to paint a portrait of several distinct perspectives of respondents; market analysts like to call these "segments." There were four such segments: a "mainstream" group (exactly two-thirds of all survey respondents) that rated aesthetics and semantics highly. A second segment (16 percent) held the concepts of theory and communication skills in high regard. Two still smaller groups each centered on theory and criticism (nine percent) and materials and communicating of concepts (eight percent).

When I looked closely at the background of the theory-centered communicator subgroup I found that, by and large, they had higher and more recent degrees than baseline survey respondents, and were represented by slightly more male respondents as well. This segment was represented more by academics than lay practicing designers in that 18 percent of the group called themselves educators; but only five percent identified themselves primarily as designers. The theory-centered critics had their degree dates falling mostly within the 1970s (probably baby-boomers); there were slightly more females in this group than in the baselines. Lastly, the materials-centered communicators were represented by more men and this group has higher and older degrees than baselines.

While many card-sorts elicited agreement between designers and educators (for example, their ratings of methods and communicating concepts were almost identical), some discord was also evident: More than one-quarter of the designers rated theory as moderately low or very low in importance, whereas fully 40 percent of the educators judged theory to be moderately or very relevant.

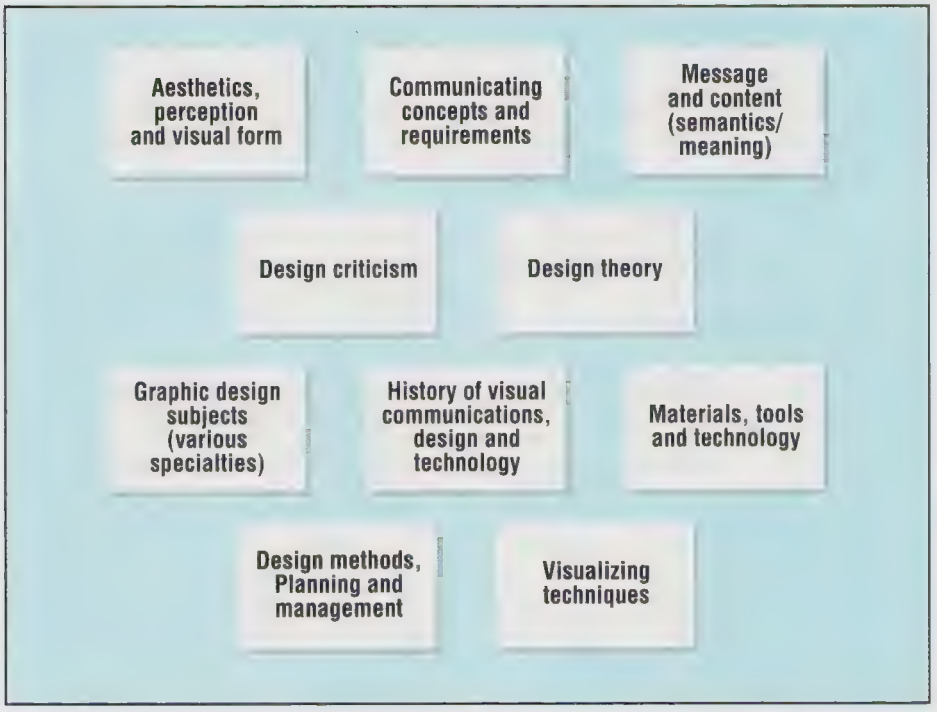
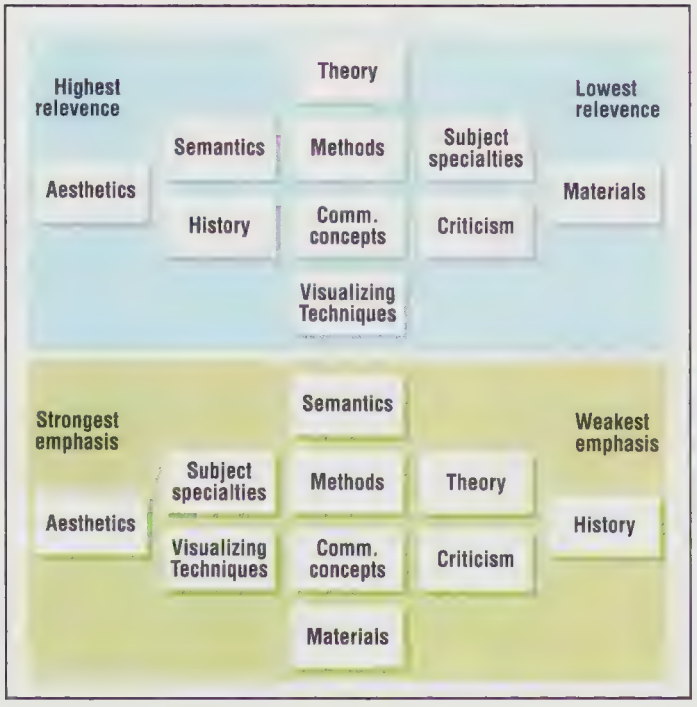

Aesthetics, perception and visual form
Communicating concepts and requirements
Message and content (semantics/ meaning)
Design criticism
Design theory
Graphic design subjects (various specialties)
History of visual communications, design and technology
Materials, tools and technology
Design methods, Planning and management
Visualizing techniques

Figure 1 The AIGA educational concepts list was cast as ten topics, rewritten as short phrases, and these were printed on small cards. Instructions for sorting, together with the cards and the AIGA pamphlet were given in a packet to each conferee. The request to sort cards was a form of judgment or "rating," made a little more agreeable by the challenge of "physical manipulation" that used non-numerical scales.

FROM PORTRAITS TO POLICIES

To my surprise, respondents quite readily pointed to what was at the center of a design education; they believe it is aesthetics and semantics. I argue that discussion now needs to focus on what concepts are "at the edges," and where we might want to see them move.

We must also look at the quality of those ten salient phrases I borrowed from the AIGA and placed on the cards of my survey. (Refer to Figure 1.) I worry somewhat that they are too salient, so big or abstract that their meanings are diffused. On the



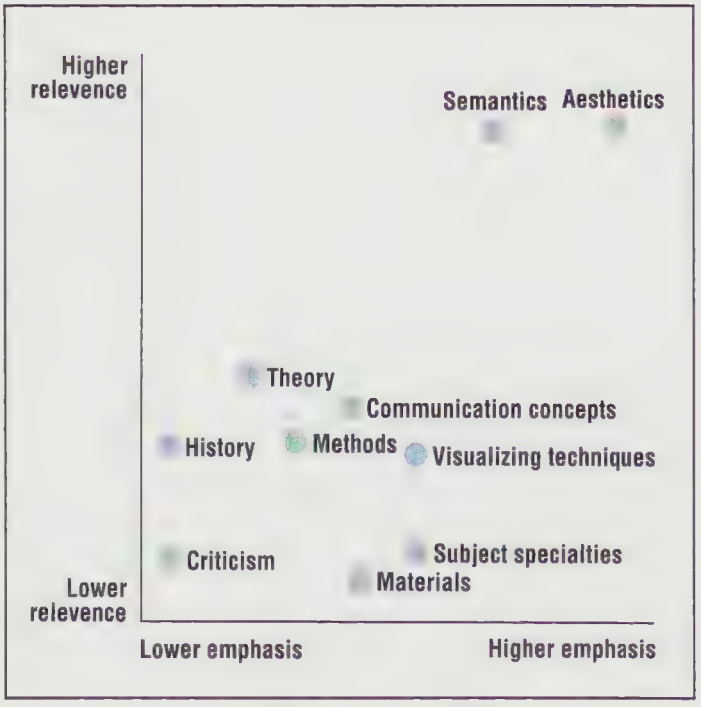


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Figure 2 Conferees sorted their cards two separate times to indicate higher or lower ranking for these two criteria: "How relevant are the 10 AIGA concepts to an ideal design education?" and "To what extent did one's affiliated department emphasize concepts?" The results of the "ideal" criterion poll are at top left, and those of the "assessment" criterion are shown at left below.

Figure 3 When ratings of educational "relevance" garnered from conferees were compared to "emphasis" ratings, their positions along rating scales could be roughly mapped. The map at upper right, if combined with an analysis of the gaps between ideal and real, tells a story. One can forego discussing the AIGA concepts that fall across the map's diagonal (represented by gray dots) since they represent a relative match of ideals with current curriculum emphasis.

A "relevance" criterion translates into educational "goals." Semantics, theory, and history fit this bill. An "emphasis" criterion becomes the educational "sacrifices" we'd make, if pressed. Visualizing techniques, subject specialties and materials fit in here. Finally, a "consensus" criterion points to uncertainty and disagreement about AIGA concepts. Though they cannot be located on this map, results reveal theory, the communicating of concepts, and subject specialties are most debatable.

other hand, if we are not careful, we might fret too much over them, wasting time making them fit into mutually exclusive pigeonholes of a classification system. I would much rather discover and debate new ways of understanding how these concepts connect to (and overlap with) each other and how they relate to liberal arts and sciences.

As I mentioned earlier, the place for this kind of debate might ideally be in roundtable discussions, articles and conferences. Practically, though, the arena should be the curriculum planning meetings held by graphic design educators "in the trenches;" this is where debate can shape educational policy.

'PREFERRED' CURRICULA

The 10 AIGA phrases used in my survey by no means constitute a curriculum; among other things a curriculum usually implies a "philosophy" joined to a set of courses, each of which complements, builds upon, or is requisite for other courses. Arguably, though, the list is as good as any from which one could launch the development (or refinement) of a graphic design curriculum. The question we surely face first is, "Do we need to define, in a detailed way, a single, centralized curriculum in graphic design?"

You will recall my findings suggested a lack of consensus on the role and place of theory, communication skills, and subject specializations within an "ideal" design program (even aesthetics, though highest overall on the list for relevance, engendered only a moderate amount of consensus among survey respondents). But how uncommon is this in education? Not very. For example, Harvard's President Derek Bok, prior to retiring, was quoted in the *Chronicle of Higher Education* (April 18, 1990) as being troubled by the recent criticisms of higher education. "When educators disagree . . . strongly about . . . curriculum, the differences are typically so subjective and value-laden that no one can prove convincingly that only one answer is correct."

Clearly the challenge to design educators is to decide whether a "one-answer" design curriculum will be a realistic goal, or a search for a grail.

While my survey hinted at what might comprise a stable "core" of a designer's education, the concepts "on the periphery" appeared more dynamic, more in flux. I wonder if such a state is all that bad. A "constellation" of periphery concepts that differs from school to school certainly would seem to make for something that is rich, varied, and possibly the source for some healthy competition among schools.

There is certainly more to be said on the subject; I urge you to consider the following: If you are out of school, what was at the core of your education, and what was on the periphery? If you now teach or are still in school, put the question in present tense. I hope you will share your thoughts with this magazine. But before you do, I suggest you write directly to the AIGA at 1059 Third Avenue, New York 10021, for your own copy of "Graphic Design Education." ■

Kevin Byrne is Associate Professor of Visual Communications at the Minneapolis College of Art and Design.

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Acclaimed international photographer and artist Francois Gillet demonstrates in his Stockholm studio how he takes a fine art approach to his photo-illustration.

ART FOR AN URBAN MARKETPLACE

Follow Dallas design firm Sullivan Perkins as it creates an entire campaign of striking graphics for Westlake Center in Seattle.

ACRYLICS ON BLUEPRINTS

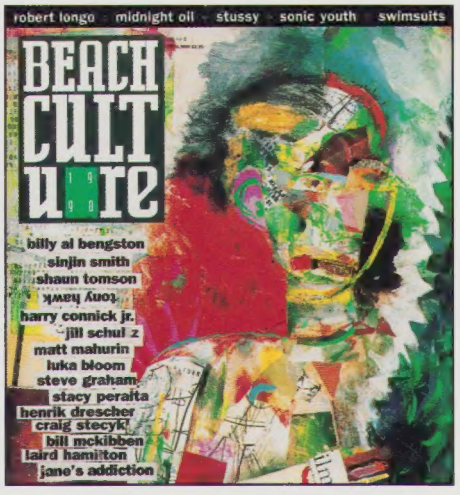
West Coast illustrator Paul Cratter blends acrylic painting on an industrial blueprint with collage as he illustrates the highlights of an NFL Superbowl game.

ESPRIT'S RECYCLED CATALOG

In this follow-up to our first recycled story, we investigate how designers at Esprit created and produced the firm's most recent tabloid-format catalog on recycled paper. And this special story even includes a four-page sample of the catalog!

BEACH CULTURE

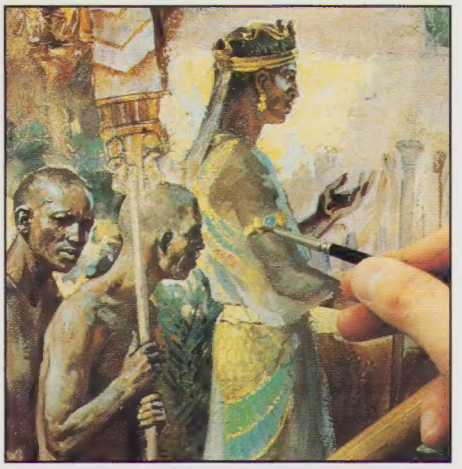
Designers are calling this magazine's graphics "unleashed, fresh, def, inspiring, hot, completely cool. . . . " And you'll find out why.



ERIK SPIEKERMANN

Follow information designer, type designer and principal of the West Berlin-based MetaDesign Erik Spiekermann as he redesigns the *TV Times* listing for clarity, readability and easy referencing.

NATIONAL GEO ILLUSTRATION



James Gurney describes his elaborate research and painting approach, including a detailed demonstration of his use of 3-D props, sketches, color studies and research obtained from archaeological digs.

ALSO TO COME:

—Collage artist Carol Wald.
—The Methods of Master Illustrator John LaGatta.
—Attorney Tad Crawford shares the steps you can take if you feel your work has been "ripped off."
—And many more Shortcuts, Solutions, Paper Resources, and Freelancing and Career Tips.

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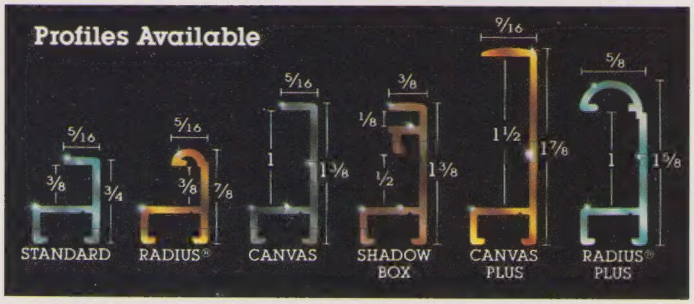

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